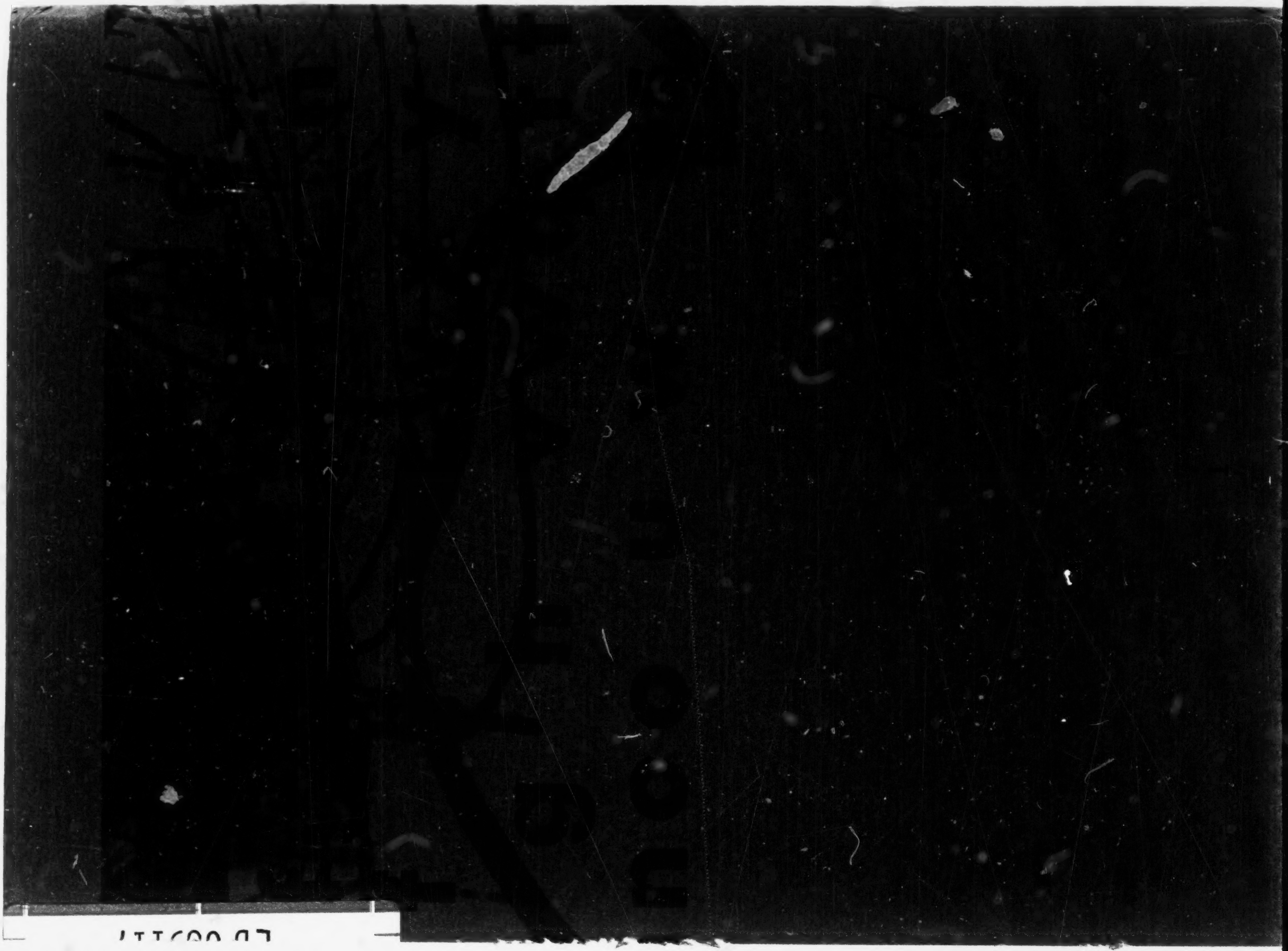
DOCUMENT RESUME

ED 065 117 JC 720 179

AUTHOR	Snyder, Fred A.; And Others
TITLE	The Employment of Career Graduates.
INSTITUTION	Harrisburg Area Community Coll., Pa.
REPORT NO	RR-7
PUB DATE	72
NOTE	100p.
AVAILABLE FROM	Harrisburg Area Community College, 3300 Cameron Street Road, Harrisburg, Pennsylvania 17110 ($2.00)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Employer Attitudes; Evaluation; *Followup Studies; Graduates; *Graduate Surveys; Institutional Research; *Junior Colleges; Relevance (Education); Vocational Education; *Vocational Followup
IDENTIFIERS	*Pennsylvania

ABSTRACT

This follow-up study of associate degree graduates from career curricula at Harrisburg Area Community College (HACC, Pennsylvania), attempts to: (1) investigate the activities of these graduates; and (2) obtain opinions from these graduates and their employers about their education and employment. Data were obtained from questionnaires sent to the 405 career students graduating between 1966 and 1970, and to their employment officers and immediate supervisors; the response rate was 78.5% for the graduates, 70% for the personnel officers, and 86% for the supervisors. The report includes a description of career graduates and their activities, employers' evaluations of graduates and their education at HACC, and graduate and employer evaluations of aspects of education and related services. Findings include: (1) 70% of the graduates were employed full-time; (2) 90% found employment in their area of specialization; (3) over half continued their education after graduation; (4) the average salary was over $6900 yearly; (5) employers generally preferred graduates to have specialized training at the college; (6) graduates evaluated their cooperative work experience positively; and (7) the large majority of graduates rated their education at HACC as superior or good, with 90% stating that they would recommend the college to a person with interest in their field. (RN)



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THE EMPLOYMENT OF CAREER GRADUATES

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RESEARCH REPORTS AT H.A.C.C.

#1. A Profile of Students. 1969, $2.00. ERIC document ED-037-203.

#2. A Profile of Graduates. 1969, $2.00. ERIC document ED-037-204.

#3. A Profile of Non-Persisting Students. 1970, $2.00. ERIC document ED-037-218.

#4. 1966 Transfer Student Performance. 1970, $1.50. ERIC document ED-040-698.

#5. Persistence of Developmental Students. 1970, $2.00. ERIC document ED-042-438.

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#7. The Employment of Career Graduates. 1972, $2.00.

#8. Community Attitudes Toward the Community College. 1971, $2.00. ERIC document ED-049-762.

#9. Faculty Readiness for Innovation: A Case Study. 1971, $2.00. ERIC document ED-057-767.

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ACKNOWLEDGEMENTS

The efforts of several individuals and groups made this report possible:

A group of faculty, graduates, and local employers helped to decide the parameters of the study and how questions should be asked.

Graduates responded in large numbers to our survey. Their willingness to give us the information we sought permitted us to survey more employers and gives greater weight to the results we obtained.

Local employers also responded in large numbers. Their willingness to involve themselves suggests the potential for an excellent interaction between the College and employers to the mutual benefit of all parties, especially students.

The efforts of the faculty who reviewed the report--Bill McGoldrick and Doug Hargis--are appreciated, as are the excellent secretarial skills of Virginia Gross.

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One of the primary educational functions of the community college is to provide education and training for persons whose immediate goal is employment in business, industry, or public and human services. At the Harrisburg Area Community College, a growing proportion of associate degree graduates complete career programs which are designed for immediate entry into employment.

The purposes of this study were (1) to investigate the activities of associate degree graduates from career curricula at H.A.C.C. and (2) to obtain the opinions of these graduates and of their employers about their employment and their education at H.A.C.C. Some of the specific questions which were investigated include:

1. Where are graduates working? In what types of positions are they employed? What are their salaries?

2. How do graduates rate the placement services at H.A.C.C.? How do graduates rate their education at H.A.C.C. as preparation for employment in their field?

3. What is the value of cooperative work experiences toward occupational preparation?

4. How do graduates rate their satisfaction with their present jobs?

5. How do employers rate graduates' performance on the job?

6. What is the extent of continued education by graduates after receiving the associate degree? How do employers rate several types of continued education and training? To what extent do employers encourage continued education through released time or cost reimbursement?

To answer these questions, this report contains a brief description of career graduates and their activities after graduation, employers' evaluations of graduates and their education, evaluations of several aspects of education and related services at H.A.C.C. by graduates and employers, and a summary of the findings and the authors' recommendations for further action. Most of the data in this report are shown in the body of the report to highlight specific findings.

Figure I shows the steady increase in the number of graduates in career areas over the past five years (Table I). In fact, each year has shown an increase of at least one-third over the number of career graduates in the previous class. With this growth in the number of career graduates, it has become increasingly important to learn about actual outcomes of the educational program.

Source of Data

Career graduates, identified through college records, were sent a copy of a questionnaire. Each graduate provided the name and address of his employer and identified his immediate supervisor. A separate questionnaire form was then mailed to each supervisor and to the personnel officer of each employer agency. A copy of each of these questionnaires is contained in the Appendix. Two follow-up letters were mailed in an attempt to get a maximum number of completed questionnaires. In all, 318 of the 405 graduates who earned associate degrees from 1966 through June 1970 returned completed questionnaires, comprising 78.5 percent of the graduate population. Response rates by curricular groups ranged from a high of 90 percent to a low of 67 percent (Table 2).

Overall, 159 different employers and 199 different supervisors were identified by graduates. Of these, 70 percent of the personnel officers and 86 percent of the supervisors returned completed questionnaires (Table 3).

As a result of the high response rate, the writers believe the findings provide reliable data for answering the questions which the study attempts to answer.

Limitations

Although data for this study are based on responses from nearly eight-tenths of the total population of career graduates, conclusions for several subgroups of graduates (curricular groups and others) are based on small numbers of graduates. However, these data form the beginning of a data base on career graduates from H.A.C.C. which will be added to during coming years, so that conclusions drawn tentatively in this report can be reviewed as new evidence is obtained.

Findings in this report are analysed primarily for separate curricular groups, but the method of analysis did not remove certain confounding effects as noted:

1. Age differences

2. The amount and type of work experience prior to attending H.A.C.C.

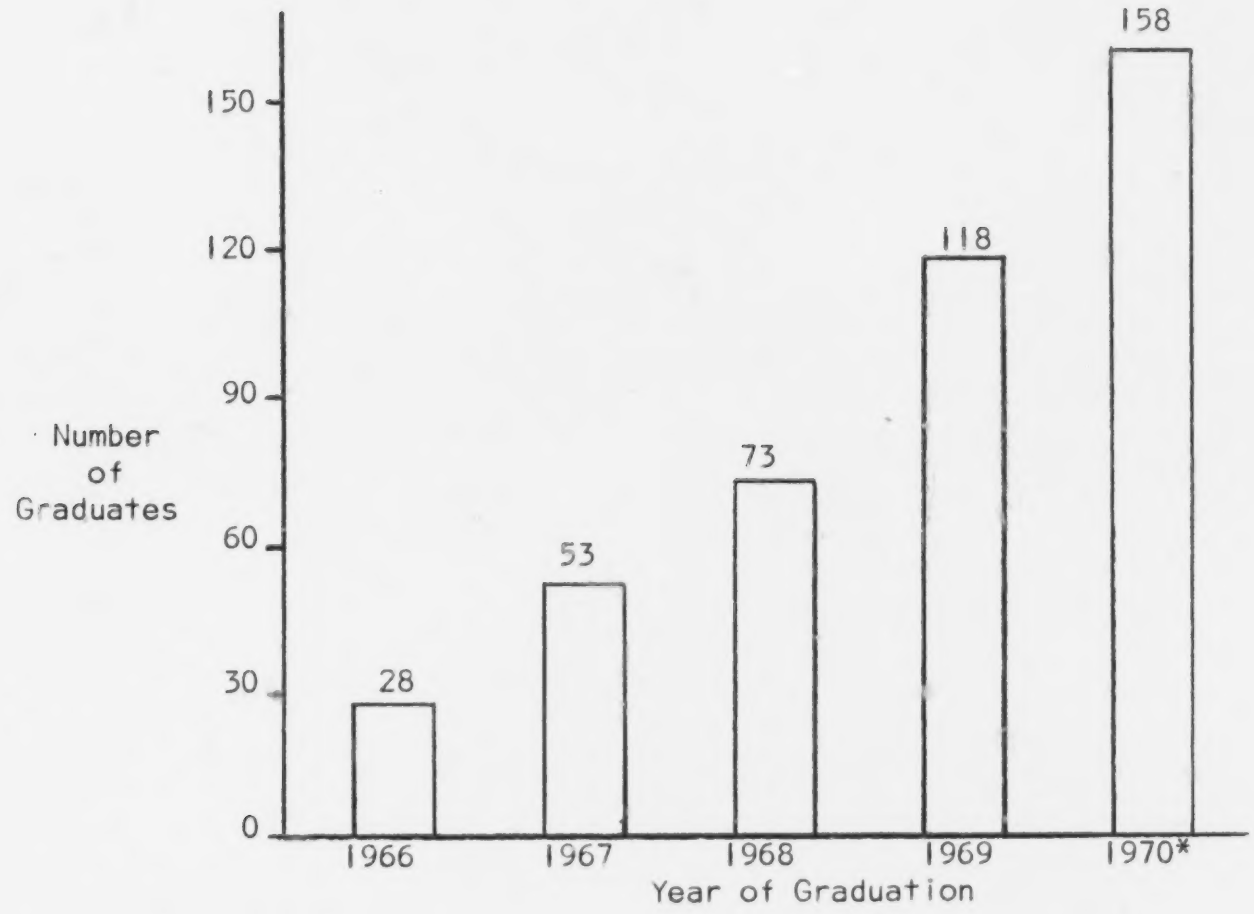

Figure 1. Total Number of Career Graduates, by Year of Graduation.

*Includes 25 graduates who received degrees during August, 1970.

3. Predominance by one sex in certain curricula which may affect salary advancement and evaluations

4. Differences in the number of earlier graduates

Any comparison of data by sex is confounded by the range of curricula pursued by males and females (Table 4). Comments on female graduates are all but synonymous with comments on graduates of Secretarial & Office Studies curricula. The career programs at H.A.C.C. have been more inclusive of masculine roles than feminine roles. Career programs in paramedical and human service areas, from which there were no graduates in this study but which will produce large numbers of women graduates in the 1970's, could significantly alter the profile of female graduates presented in this report.

GRADUATES AND THEIR ACTIVITIES

Respondents of this study were graduated from 19 separate career curricula. For analysis of study data these curricula were usually arranged into 10 groups, as shown in the tabulation below. Where two or more curricula were combined to form a curricular group, the separate curricula are shown indented below the curricular group heading. One transfer curriculum, Police Administration, was included because many graduates from this program took immediate employment in police-related fields. Although this program was designed for transfer to relevant baccalaureate programs, in terms of outcomes it is not clearly distinct from the several other police-related career programs which are offered at the College.

Distribution of Respondents by Curricula and Curricular Groups

	N
Business Management & Accounting	43
Accounting (17)	
Business Career (11)	
Business Management (15)	
Civil Technology	34
Data Processing	18
Drafting & Industrial	26
Architectural Drafting (1)	
Civil Engineering Drafting (2)	
Electronic Service & Merchandising (1)	
Industrial Drafting (17)	
Industrial Electrical (5)	
Electronics Technology	30
Food Services	11
Police Administration	41
Police & Related Career	33
Corrections (2)	
Police Management (24)	
Public Service (7)	
Retailing	29
Secretarial & Office Studies	53
Executive Secretarial (50)	
Office Studies (3)	
Total	318

Respondents were composed of about three-fourths men and one-fourth women (Table 4). Most women had completed the Secretarial & Office Studies curricula, and nearly all of the remainder majored in Retailing or Data Processing.

Over eight-tenths of those who graduated from 1966 through 1970 were young, being under 25 years of age at the time of this study. Somewhat more men than women graduates were age 25 or over (Table 5). Graduates who entered jobs in the areas of electronics tech, police work, and public services tended to be older (Table 6). About half of both men and women graduates were married at the time of this study (Table 7).

Employment Status

Seven-tenths of both men and women were employed full-time (Table 8). Additionally, about one-fifth of the female graduates were taken out of the job market as housewives, and five percent were engaged in full-time study. Nearly one-fifth of the men were engaged in full-time study, and just under one-tenth were in the military service. About five percent of both men and women were classified as employed part-time, or "other," i.e., not in a full-time role on these criteria.

There was little variation among the curricular groups in the types of current activity reported (Table 9). Military service extensively affected the graduates of only one curricular group, Drafting & Industrial. The status of housewife accounted for relatively high percentages of graduates of Secretarial & Office Studies and Retailing curricula. These results were expected in light of the number of women in these curricula. No one curriculum had an extraordinary number of graduates classified as "other" or "employed part-time."

Almost two-thirds of the graduates who reported full-time employment had held just one full-time position (Table 10). Slightly more than a third of the graduates had changed jobs since graduation. However, only a small percentage (7 percent) had changed positions more than once.

Different rates of job change by curricular groups may in part be caused by larger numbers of earlier graduates in certain curricula (see Tables 1 and 2), but other factors may have been operating. Data Processing graduates showed the highest job stability, but this may reflect their recent graduation since 1968. Employment of Police Administration graduates was also relatively stable, even though graduates go back to 1967. The fact that these graduates were older may have affected their employment stability. The greatest number of

job changes occurred among graduates of Secretarial & Office Studies and Police & Related curricular areas. For secretaries, this may be due in part to the fact that they were relatively young and worked in jobs where mobility is easy, even in a limited geographic area. No explanation for high job mobility among graduates from Police & Related curricula is apparent from the data.

In sum, career graduates from H.A.C.C. were prepared for employment in well-defined career areas immediately upon completing the two-year degree. Most were employed full-time or were full-time students taking further education before embarking on a career. They were also rather stable in their employment, in that most had not changed positions. A later follow-up of these graduates should explore patterns of job stability or changes and relate these to realistic career patterns and educational preparation.

Geographic location. More than four out of five employed graduates worked for companies or institutions in South-Central Pennsylvania.[1] Of the remainder, more graduates worked outside Pennsylvania than were employed within the State beyond the South-Central Pennsylvania area. Differential rates of retention are shown in Figure 2 and on Table 11. Graduates in Electronics Tech and Civil Tech were employed outside of South-Central Pennsylvania at higher rates than graduates of other curricula. Graduates of Police & Related Career, Drafting & Industrial, and Retailing were more apt to stay in South-Central Pennsylvania than other graduates.

Relation of Curriculum to Job Area[2]

The relationship of the graduates' curriculum to the job area they entered yields a partial answer to the question of whether H.A.C.C. is educating students for job areas its graduates can enter. This relationship (hereafter noted as "congruence") between curriculum and job area is rather high for most curricula (Table 12). Overall, nearly nine-tenths

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[1] Includes the counties of Cumberland, Dauphin, Lancaster, Lebanon, Perry, and York.

[2] In order to avoid confusing names of curricula and job areas, curricula will be capitalized, and references to job areas will use lower case letters.

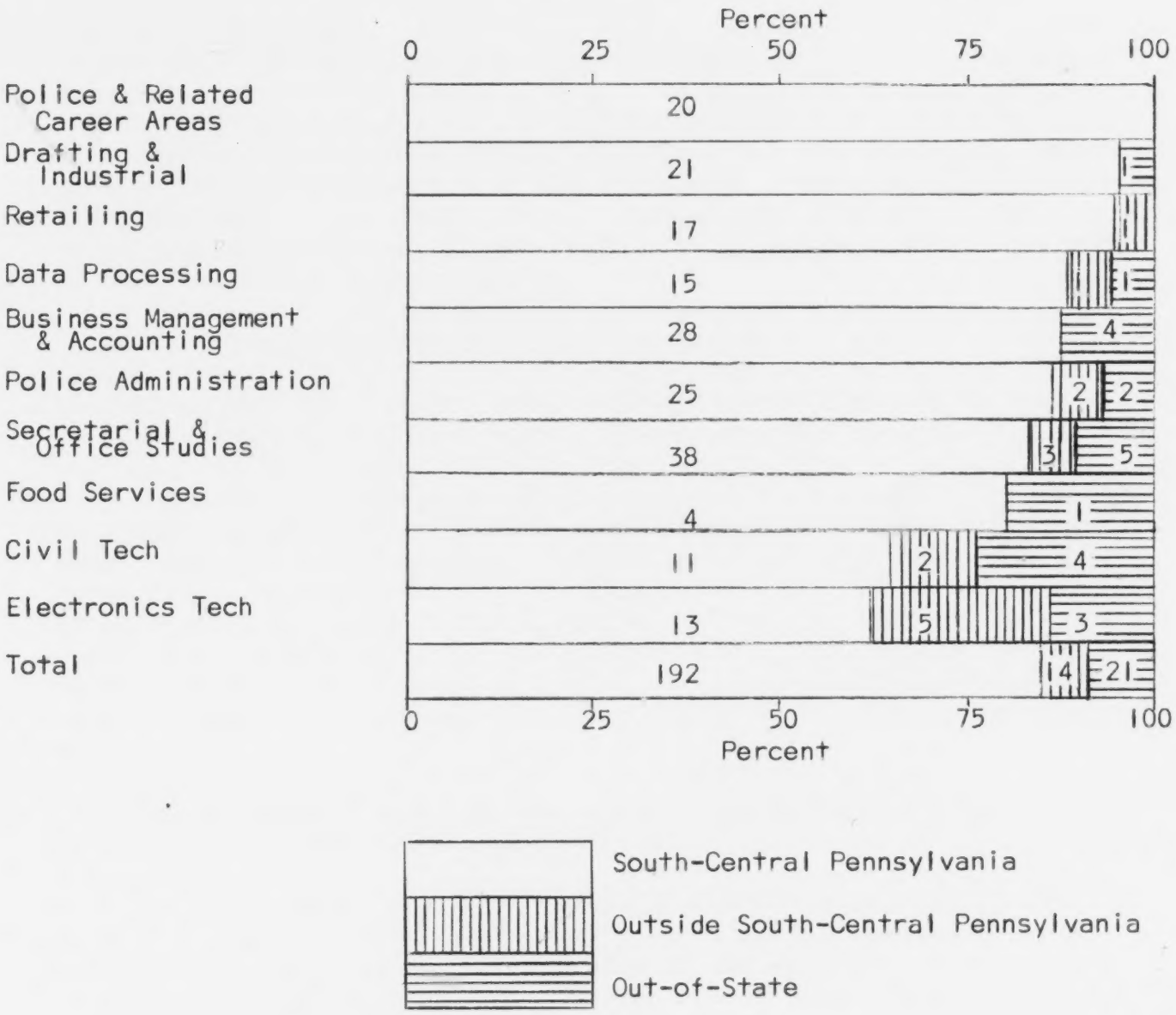

Figure 2. Job Location, by Curriculum Completed.

(Note.--The number within a row is the actual N to which the percentage corresponds. See Table II.)

of the jobs reported were judged to be congruent with the graduates' curricula, rather than somewhat congruent or not congruent. Figure 3 demonstrates differences in job congruence among all curricular groups. For three curricula, fewer than eight-tenths of the graduates reported jobs which were congruent with their education--Retailing, Electronics Tech, and Data Processing. When we look at the alternative job areas which graduates entered, we see that jobs in business areas drew many of the "mavericks" (Table 13).

Job titles, reported by curriculum completed, yielded more information (Table 14). The Electronics Tech graduates moved into jobs of varying complexity, ranging from complex systems analysis to less technical areas such as administration and service management.

The Retailing graduates entered a variety of areas. The number of these graduates entering management-type positions was high, especially when compared to the number of Business Management & Accounting graduates who entered management. The levels and types of management differed as was suggested by the job titles. The lower-level management jobs reported by Retailing graduates may be related to graduates' relative youth. It was also noted that a number of Retailing graduates took jobs in secretarial-clerical areas (Tables 13 and 14).

Men and women graduates were equally successful in finding jobs congruent with their curricula (Table 15).

The question of whether or not a graduate's education in an associate degree career program contributes to his employment potential was partially answered, affirmatively, by the data on job congruence. It can also be noted that even "non-congruent" jobs sometimes offer the same degree of economic and status benefits as "congruent" jobs.

Post-Associate Degree Education

A majority of graduates of career programs continued their education after earning the associate degree, either in college courses or employer training programs. Further discussion of these continued educational activities is included in the sub-sections which follow.

Baccalaureate programs. Overall, one-fourth of the graduates attended a four-year college at least part-time. It is of interest to note that just under one-tenth of the graduates completed a baccalaureate program. This was to be expected, as all graduates (except those in Police Administration) earned associate degrees which were oriented to immediate employment rather than toward baccalaureate education. It is noteworthy that sizeable numbers of graduates in five curricular areas attended four-year colleges. Half of the Electronics Tech graduates

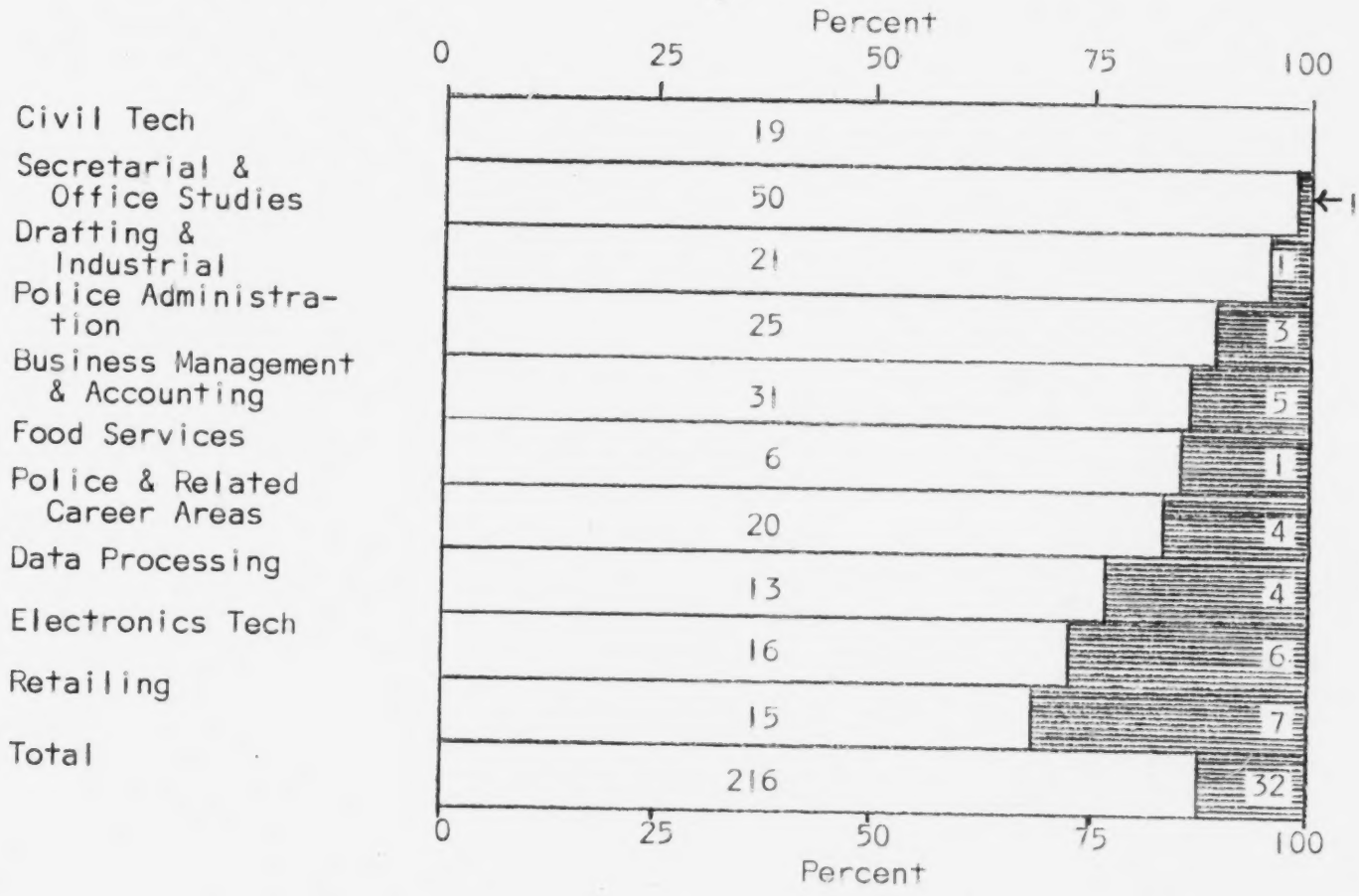

Figure 3. Congruence Between Job and Curriculum, by Curriculum Completed.

(Note.--The number within a row is the actual N to which the percentage corresponds. See Table 12.)

had attended a four-year college, and one-third of the graduates from four other program areas--Police & Related, Civil Tech, Business Management & Accounting, and Food Services--attended four-year colleges (Table 16).

Several observations appear worthy of comment: (1) Although Police Administration graduates completed a program which is noted in the College Catalog as a "transfer" program, only one-fourth transferred. Yet, one-third of the graduates in career "(terminal") Police & Related programs attended four-year colleges. Clearly, the program distinctions between "transfer" and "career" police areas should be reviewed. (2) The fact that large proportions of graduates from the Engineering Technologies transferred was probably due to the proximity of the Capitol Campus of Pennsylvania State University, with its series of Bachelor of Technology programs. Clearly, the traditional distinction between transfer and career programs at the associate degree level is disappearing, and the terminal objectives for such programs must be reviewed carefully. (3) Many graduates in Business Management & Accounting and Food Services continued their education at a baccalaureate level. Again, the objectives for these programs should be reviewed carefully in view of the findings of this study. (4) The reason why relatively few graduates had earned baccalaureate degrees cannot be determined clearly. For one thing, many of these graduates appeared to be continuing their education on a part-time basis and may not have aspired to a four-year degree.

In all, career graduates reported attendance at 38 different four-year colleges and universities (Table 18). However, two-thirds of them attended just nine institutions, all but two of which are in Pennsylvania. Colleges attended most frequently were generally in the Harrisburg area--Capitol Campus, Penn State; University Park campus, Penn State; Elizabethtown; and York. The pattern of college attendance appears to reflect several factors:

1. Proximity to the graduate's residence. This would account for the high attendance frequencies at South-Central Pennsylvania institutions.

2. Low cost of the college. Cost involves not only tuition but also reduced expenditures for room and board while living at home. Low cost and proximity probably operate together for many part-time commuting students.

3. Relevance of senior college programs to associate degree programs. This factor is clearly visible and is independent of the proximity of the college.

Overall, six-tenths of the graduates attended college in Pennsylvania, most at State or State-related institutions. Yet, career graduates enrolled in four-year programs in areas generally congruent with those in which they earned associate degrees (Table 19). The Police Administration and Police & Related Career graduates entered either similar

curricula or liberal arts programs. Technology career graduates, with few exceptions, entered congruent four-year programs, usually at Capitol Campus, Penn State. The few Secretarial & Office Studies graduates who transferred entered business education programs. Business Management & Accounting, Retailing, and Food Services graduates entered business or secondary education programs.

Notable differences between men and women occurred in four-year curricular enrollments, and these differences appeared consistent with their respective curricula at H.A.C.C. (Table 20).

Employer-training programs. Overall, one in five career graduates were involved in an employer-training program. This study did not provide specific information about the nature of training programs which were reported by career graduates.

Employer-training programs were reported most often by graduates in Data Processing (44 percent), Police & Related Areas (33 percent), and Electronics Tech (33 percent) (Table 16). Graduates from four curricular areas reported little or no participation in such programs--Secretarial & Office Studies, Drafting & Industrial, Business Management & Accounting, and Civil Tech.

Rationale for continuing education. Personal satisfaction, preparing for job opportunities in the same occupation, and improving skills were the main reasons for most graduates continuing their education or training after earning an associate degree. Few graduates in any curriculum or job area were preparing to change occupations via their continued education (Tables 21 and 22). Only Retailing and Data Processing graduates were moderately motivated by employer expectation. The inter-relationships of factors such as personal maturity and the expectation of employers cannot be precisely interpreted from the data. Many graduates are apparently doing "their own thing" when continuing their education.

A comparison of the relative importance of reasons for continued education by men and women revealed several points (Table 23). Men were generally preparing for job opportunities in their present occupation and were also seeking personal satisfaction. Women were primarily seeking personal satisfaction while other reasons were of lesser importance.

Vocational advancement is an important reason for men to continue education, and many more men (69 percent) than women (30 percent) continue their education. The disparity may be reduced when graduates are added in areas such as nursing and medical technology.

In sum, continued education or training after receiving the associate degree was part of the lives of more than half of the career graduates. The continued education, whether at a senior institution or in an employer program, was generally a way of enhancing one's position within a career rather than changing career areas.

Salaries

One criterion for judging the value of a career program is the salary level of graduates. In this study, salaries were examined across several dimensions: year of graduation, sex, curricular areas, and job areas. Unfortunately, the effects of these separate dimensions were not isolated by this analysis, but the data tabulations suggest that each factor affects salaries. It should be remembered that these figures relate only to associate degree respondents who were employed full time, and that 30 percent of the respondents were not employed full time, primarily because they were full-time students or housewives.

Average salaries reported by graduates from earlier classes were higher than those reported by more recent graduates, probably reflecting the effects of personal maturity and career development. Data were collected in the fall, 1970. The 1966 graduates reported median salaries of nearly $8100, and this figure was successively lower for later graduates, falling to nearly $6300 for 1970 graduates (Table 24). Much of the difference in salaries reported by the several classes may be due to differences in age and maturity of career development.

There were large differences between the median salaries reported by graduates from different curricula (Table 25). Police Administration graduates reported highest salaries ($8655). These were followed by Electronics Tech, Business Management & Accounting, Civil Tech, and Police & Related (from $7749 to $7249). Lower salaries were reported by graduates in Retailing, Data Processing, and Drafting & Industrial (from $6749 to $6299), and salaries of under $6000 were reported by Secretarial & Office Studies and Food Services graduates. These salaries are affected by variations in age and sex of graduates. Graduates in Police Administration and Business Management & Accounting were predominantly men and were the oldest of the curricular groups. Secretarial & Office Studies and Food Services graduates were the youngest and were predominantly women.

The difference in the median salary of men and women was an impressive $1866 (Table 26). However, when factors such as the types of careers women choose and the relative youth of the females in the study population are considered, the apparent disparity is less significant.

Salaries were also tabulated on the basis of job areas, regardless of the curriculum completed. Some major differences were found between salaries reported by graduates from a curricular area and salaries reported by graduates employed in a congruent job area (Table 27). Comparative salaries as reported by graduates from curricular areas and respective job areas are listed as follows:

Curricular Area	Curricular Area Salary	Congruent Job Area Salary
Police Administration	$8665	$8436 (Police)
Electronics Tech	$7749	$8249
Business Management & Accounting	$7599	$7374 (Business)
Civil Tech	$7436	$7311
Police & Related	$7249	$8167 (Public services)
		$6833 (Corrections)
Retailing	$6749	$7582
Data Processing	$6665	$7624
Drafting & Industrial	$6299	$6199
Secretarial & Office Studies	$5593	$5453
Food Services	$5499	$7000
Others, Unknown	-	$6000

The graduates who were employed in several job areas--electronics tech, public services, retailing, data processing, and food services--reported higher salaries than the graduates from corresponding curricula. Many of the differences in salaries of graduates in congruent curricula and employment areas may be explained by graduates not going into the field for which they were specifically educated. Graduates of the Data Processing, Retailing, and Electronics Tech curricula demonstrated the least congruency between job area and curriculum (Table 12). Some Data Processing graduates went into lower-paying job areas, while some Business Management & Accounting graduates went into data processing and apparently increased the median salary. Several Retailing graduates went into less-congruent jobs with less pay than those who stayed in retailing. The electronics tech & related field lost Electronics Tech graduates to business and "other" job areas, while gaining the three highest-paid Drafting & Industrial graduates. Generally, graduates who took employment in non-congruent jobs received less salary than those who were employed in congruent job areas.

The pursuit of higher salaries is readily appreciated as a rationale for changing job areas. However, it is apparent that several graduates moved into less well-paying positions which were not in congruent curricula. An investigation of reasons for both types of job migration, especially the latter, may provide useful information for a placement service and for career counseling.

In sum, the average salary reported by career graduates was $6900. Graduates from all curricular areas except Secretarial & Office Studies and Food Services reported salaries of over $6000. Men reported higher salaries than women, $7540 to $5670. Older and earlier graduates reported higher salaries.

Job Satisfaction

The graduate's satisfaction with his job is believed to be an important criterion for evaluating a curriculum. Graduates rated their satisfaction with six aspects of their present job as "superior," "good," "fair," or "poor." Results were evaluated for each of the six job aspects by curricular area (Table 28), by job area (Table 29), and by sex (Table 30).

Overall, three-fourths of all graduates rated their job satisfaction as superior or good (Table 28). Highest ratings were given to "good relations with colleagues" (90 percent), followed by "interesting work" (79 percent) and "challenging work" (77 percent). Less than six-tenths rated as superior or good the aspects of "salary" (59 percent) and "opportunity for advancement" (51 percent). Among curricular groups, most satisfied were graduates from Police Administration, Police & Related Areas, Secretarial & Office Studies, and Business Management & Accounting. Least satisfied were graduates from Civil Tech, Dratting & Industrial, and Electronics Tech.

It is interesting to note that, while graduates expressed general satisfaction with their work as challenging, interesting, and having good colleague relationships, they were notably less satisfied on the two key issues of salary and opportunity for advancement. Reasons for graduates' dissatisfactions cannot be determined with certainty, but it can be noted that their salaries ($6900 plus, on the average) were less than adequate for the "good life" as stressed by the mass media. While the writers view the salaries of these recent associate degree graduates as adequate, overall, it is easy to understand graduates' impatience for better salaries and more visible opportunities for advancement.

It should also be noted that personal evaluations are related to the perspectives of each individual. This could account for some variance in evaluations, such as where some graduates of certain curricula with relatively high median salaries still were dissatisfied, and where Secretarial & Office Studies graduates who had relatively low salaries expressed general satisfaction with their salaries.

While it is useful to view employment in terms of given curricular areas, it is equally useful to view it in terms of employment in given job areas. This dual perspective can be of assistance to staff members responsible for recruitment, instruction, guidance, and job placement of students in given educational programs. Generally, job satisfactions as summarized by job areas were similar to those obtained from graduates of congruent curricular areas, with some exceptions (Table 29).

Figure 4 illustrates the differences in overall satisfaction among graduates in different job areas. Job satisfaction was highest for persons employed in areas of police work, public services, data processing,

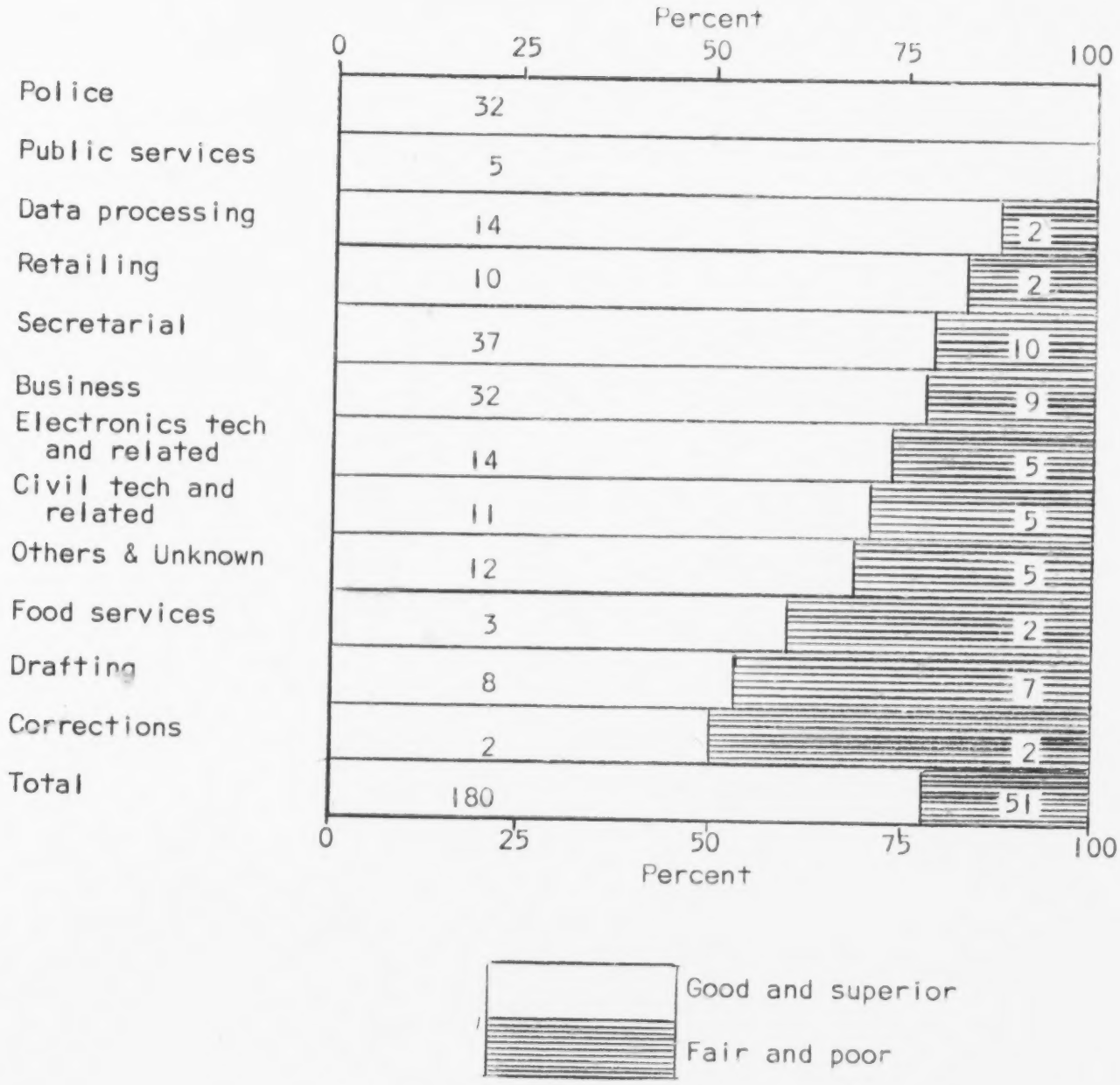

Figure 4. Rating of Overall Job Satisfaction, by Job Area

(Note.--The number within a row is the actual N to which the percentage corresponds. See Table 29.)

and retailing. Satisfaction was lowest for persons in areas of corrections, drafting, food services, and civil tech and related areas. There were only five or fewer graduates employed in the areas of public services, food services, and corrections, and their ratings of job satisfaction cannot be viewed as valid indicators of satisfaction which later graduates might have.

The job satisfaction of only those graduates who were employed in congruent job areas differed in several respects from that of all graduates from respective curricula. Those in electronics tech jobs were more satisfied in a number of respects than were all Electronics graduates. Those employed in drafting were less satisfied than their curricular colleagues. Those in police jobs were more satisfied overall, but less satisfied with salary and opportunity. Those in public service jobs were generally more satisfied than their colleagues from Police & Related curricula. Those in food services jobs were notably less satisfied than their curricular colleagues (bear in mind the number of respondents was very low). Graduates in data processing jobs were much more satisfied than were all Data Processing graduates. These differences in satisfactions parallel somewhat the salary differences which were noted earlier.

Overall, men and women were equally satisfied with their positions, but there were some differences in ratings of specific job aspects. Higher percentages of men than women were satisfied with challenge, interesting work, and opportunity for advancement (Table 30). Women were more satisfied with relations and colleagues and salaries, despite the fact they had comparatively low salaries. Differences in ratings of men and women graduates may reflect personal needs as well as actual job characteristics.

The meanings of the data about graduates' job satisfaction cannot be fully explored in this report. Some meanings emerged when the data were compared by curricular areas, job areas, and sex. Unfortunately, there are few similar studies of associate degree graduates from career or occupational-technical programs to serve as an external basis of comparison. The writers suggest that community college students need to know more about the activities, expectations, and rewards they face in prospective occupational areas and that the College must assume responsibility for these areas of student learning; teaching occupational skills and general education is not sufficient. An active college placement service could be instrumental in helping students obtain information about careers, as well as in making employer contacts for more specific job placement services.

THE EMPLOYERS

The opinions of career graduates held by their employers is important in evaluating the employment of career graduates. Proper identification of employment needs in combination with social and individual factors can help the College develop relevant career programs and student guidance and placement services. One objective is to optimize the process of helping students perceive accurately the various career fields and to prepare most appropriately for them.

The names and addresses of employer firms and the names of the graduates' immediate supervisors were obtained from the graduates via the questionnaire. Personnel officers and supervisors were each sent their own respective forms of a questionnaire (see Appendix). Responses were received from 86 percent of the supervisors and 70 percent of the personnel officers (Table 3). The personnel officer form was addressed to the "Personnel Officer" of the employer firm. It is likely that some organizations did not have a person in the position of personnel officer.

Three-fourths of the respondent personnel officers had just one graduate in their employ (Table 31), and nine-tenths of the supervisors had just one career graduate under their supervision (Table 32). Most of the graduates in civil tech & related, data processing, and police job areas were employed by relatively few organizations. In the analysis of employer responses, each response was given equal weight; no attempt was made to give a response weight in accordance to the number of graduates which were represented.

Educational Preferences of the Employer

Personnel officers were asked to select the type of educational preparation they preferred for associate degree graduates whom they might employ--a specialized program, a general program, or a combination of the two. Overall, one-half of the personnel officers preferred a specialized training, one-third preferred a combination of special training and general education, and the small remainder preferred primarily general education (Table 33). Employers in areas of the engineering technologies, drafting, and data processing strongly preferred a specialized education for their career graduates. Employers in areas of business, secretarial, and corrections & public services showed equal preference for specialized and combined education. Police area employers preferred the combined education.

Evaluation of Graduates

Personnel officers and supervisors were asked to rate the career graduates in their employ on eight criteria as "superior," "good," "fair," or "poor." The criteria are listed as follows:

1. Mastery of technical skills
2. Good relations with colleagues and others
3. Personal appearance and conduct
4. Readiness for additional responsibility
5. Ability to learn new tasks
6. Ability to accept and follow instructions
7. Dependability
8. Overall performance

Employer evaluations were obtained for graduates in 10 job areas, rated separately by the supervisors and personnel officers, on 8 standard criteria. It is important to remember that although the raters were responding to standard criteria, raters represent a very diverse group. It is probable that the raters of secretaries, engineering technicians, retailing personnel, and policemen had vastly different perceptions of technical skills, appearance and conduct, ability to learn new tasks, and so forth. There was considerable divergence in ratings by immediate supervisors and personnel officers. As a result of these several conditions which prevented drawing concise conclusions about the ratings, the writers present a brief overview of the results in the following paragraphs and show more detailed data in Table 34. Staff members responsible for instruction and job placement may want to examine them further.

The comments which follow assume greater reliance upon ratings by supervisors than those by personnel officers. This decision was partly arbitrary, but it also reflected the view that supervisors were in a better position to rate the graduates, and it considered that ratings by supervisors were more numerous while each was based on a smaller number of graduates.

Overall, ratings by supervisors of graduates were fairly high, with from 80 to 100 percent rating the graduates as superior or good. Best ratings were received by graduates in job areas of data processing, secretarial, and police work, while ratings of graduates in civil tech, drafting, and corrections & public services were not as positive.

Within job area groups, the ratings of the 8 criteria were generally homogeneous, usually ranging from 80 to 100 percent as superior or good. A few somewhat lower ratings were noted: Three-tenths of those in civil tech and related jobs were rated as fair or poor in readiness for additional responsibility. Nearly one-fourth of those in drafting received fair or poor ratings in mastery of technical skills, readiness for additional responsibility, and ability to learn new tasks. Nearly

one-fourth of those in police work were rated as fair or poor in readiness for additional responsibility. One-fourth of those in corrections and public services were rated as fair or poor in mastery of technical skills. Overall, these lower ratings were the exception; only 6 out of 72 were less than 80 percent good to superior.

When interpreting these ratings of graduates by employers, one must keep in mind that a number of factors other than the curriculum and the preparation of the graduate were being evaluated. The age and sex of the graduate may be important, the amount of competition and press for advancement in an employment setting, and the experience of the graduate were all reflected. However, the results of this survey were viewed by the writers as useful to college staff members, as they do reflect the perceptions of employers.

Evaluation of the Importance of Education

Employers, through immediate supervisors of graduates and personnel officers at organizations which employed graduates, were asked to evaluate three types of continued education and training activities for associate degree graduates which they employed. These included (1) on-the-job training, planned by the employer; (2) additional specialty courses at area colleges; and (3) additional general education courses at area colleges. The choice of ratings included "important," "of some importance," and "of little or no importance."

Both supervisors and personnel officers agreed, overall, in their comparative ratings of the three. The large majority of both types of employer representatives rated on-the-job training as important. Additional specialty courses received lower ratings than on-the-job training, but they were rated more important than were additional general education courses (Table 35). Ratings varied broadly, however, by job areas of graduates. Several specific observations of the employer ratings of continuing education for associate degree graduates are listed as follows:

1. On-the-job training. From two-thirds to all supervisors and personnel officers rated this type of continuing education as important.

2. Additional specialty college courses. Employer representatives varied broadly by job areas of graduates in their ratings of special college courses. Very few employers of secretarial and retailing graduates rated such college courses as important. Over half of the employers in job areas of corrections, police, and data processing rated such courses as important. For electronics tech employees, supervisors rated specialty courses much higher than did personnel officers.

3. Additional general education college courses. Employer representatives rated such courses lowest among the three types of continuing education. Highest ratings were given to general

education college courses by employers of graduates in corrections and police work. Still, well under half of these employers (personnel officers) rated such courses as important.

Personnel officers of organizations which employed graduates were asked to indicate which of three types of incentives for continuing their education they offered associate degree graduates. One-half reported offering in-service training programs, six-tenths providing some payment for educational expenses, and one-third offering released time for attendance at college courses (Table 36). Comparisons of results across job areas were not developed because of the limited number of responses in many job areas. Of the six-tenths of all employers who offered some payment toward tuition and related educational expenses incurred by graduates who attend college courses, six-tenths reimbursed full expenses, and an additional three-tenths reimbursed between half and full expenses (Table 37).

As might be expected, employers want the continued education of the graduates whom they employ to contribute directly to the job. On-the-job training and additional specialty courses were viewed as fulfilling this objective. Employers appeared concerned that graduates continue their education in one form or another, and they provided a number of incentives to assist graduates.

EVALUATION OF H.A.C.C.

What both employers and the graduates think of Harrisburg Area Community College is an important measure of how the College is meeting their respective needs. Graduates were asked several questions about their experience at H.A.C.C. and its relation to their current employment. Personnel officers were asked about the advantages of employing associate degree graduates.

Graduates' Evaluations

The career graduates were asked to evaluate a number of aspects of their college experience and its relation to their employment, as follows: assistance in job placement, the value of cooperative work experience, the mix of courses in their curriculum, the value of the degree for getting a job, rating the College as preparation for employment, and whether they would recommend the College to a prospective student.

Placement service. Graduates were asked to check each of several statements about the College placement service. Of 318 respondents, only 67 rated the placement service as good, overall, and 26 rated the service as inadequate (Table 38). These results suggest that the placement service was viewed as only moderately positive and that there is considerable need for studying how job placement services might be improved. However, of seven possible statements, the four highest ranked were positive, and the three lowest ranked were negative, as follows:

Statement	Rank Order
Could still get help, if needed	1
Considerable assistance from staff	2
Placement service was helpful	3
Good placement service overall	4
Little interest or assistance	5
Willing to help but lacking in knowledge	6
Inadequate placement service overall	7

Evaluation of placement services varied between curricular groups. Drafting & Industrial graduates rated the placement services lowest, and Civil Tech graduates were next lowest in their ratings. Attitudes of graduates toward the placement service were related to some extent to job satisfaction; curricular groups with high satistaction appeared to be less critical of placement services.

Evaluation of placement services by graduates varied little according to year of graduation (Table 39).

Cooperative work experience. There were four curricular areas which included formal cooperative work experiences--Secretarial & Office Studies, Retailing, Data Processing, and Food Services. About eight-tenths of those graduates who completed co-op experiences rated them as excellent or good (Table 40). Several graduates from other curricula had completed informal co-op experiences, and their ratings were likewise positive. The cooperative program appears to have several benefits, both educational and financial, and such programs might well be developed for all associate degree career programs.

Curricular balance. Career graduates were asked to evaluate the "mix" of courses as (a) O.K. as is, (b) need more applied and technical skills preparation, and (c) need more general education. In general, over seven-tenths of the graduates rated the mix of courses as "O.K. as is." Where graduates recommended a change in the mix, it was usually in favor of more technical and skills courses (Table 41). Figure 5 illustrates differences in evaluations by curricular groups.

Graduates of the Business Management & Accounting and Police curricula were the most satisfied with the overall balance of their courses. Drafting & Industrial, Data Processing, and Civil Tech curricula had relatively high percentages of graduates desiring change toward more technical courses. These choices may reflect both personal desires and job demands.

A review of the same responses categorized by job areas rather than curricula yielded similar results (Table 42). Graduates in the drafting, data processing, and civil tech & related job areas demonstrated considerable desire for more technical courses. The type of educational preparation desired by the employers generally corresponded to the type of curriculum change desired by the graduates in corresponding job areas (Table 33).

Advantage of the associate degree. Career graduates were asked if associate degree graduates had a better chance of being employed in their field than persons who had not earned a degree. Figure 6 summarizes the results by job areas.

More than 70 percent of the graduates responded that the associate degree was helpful in obtaining a position (Table 43). A relatively high percentage of graduates in civil tech & related jobs and in drafting responded positively. Graduates in secretarial and police positions were somewhat less positive, but almost two-thirds of those graduates still responded positively. The category of graduates in "other and unknown" job areas reported less than half positive responses, probably because the degree bore little or no relation to their work.

H.A.C.C. education. Graduates were asked to rate several different objectives of their education at H.A.C.C. as "superior," "good," "fair," or "poor." The aspects included:

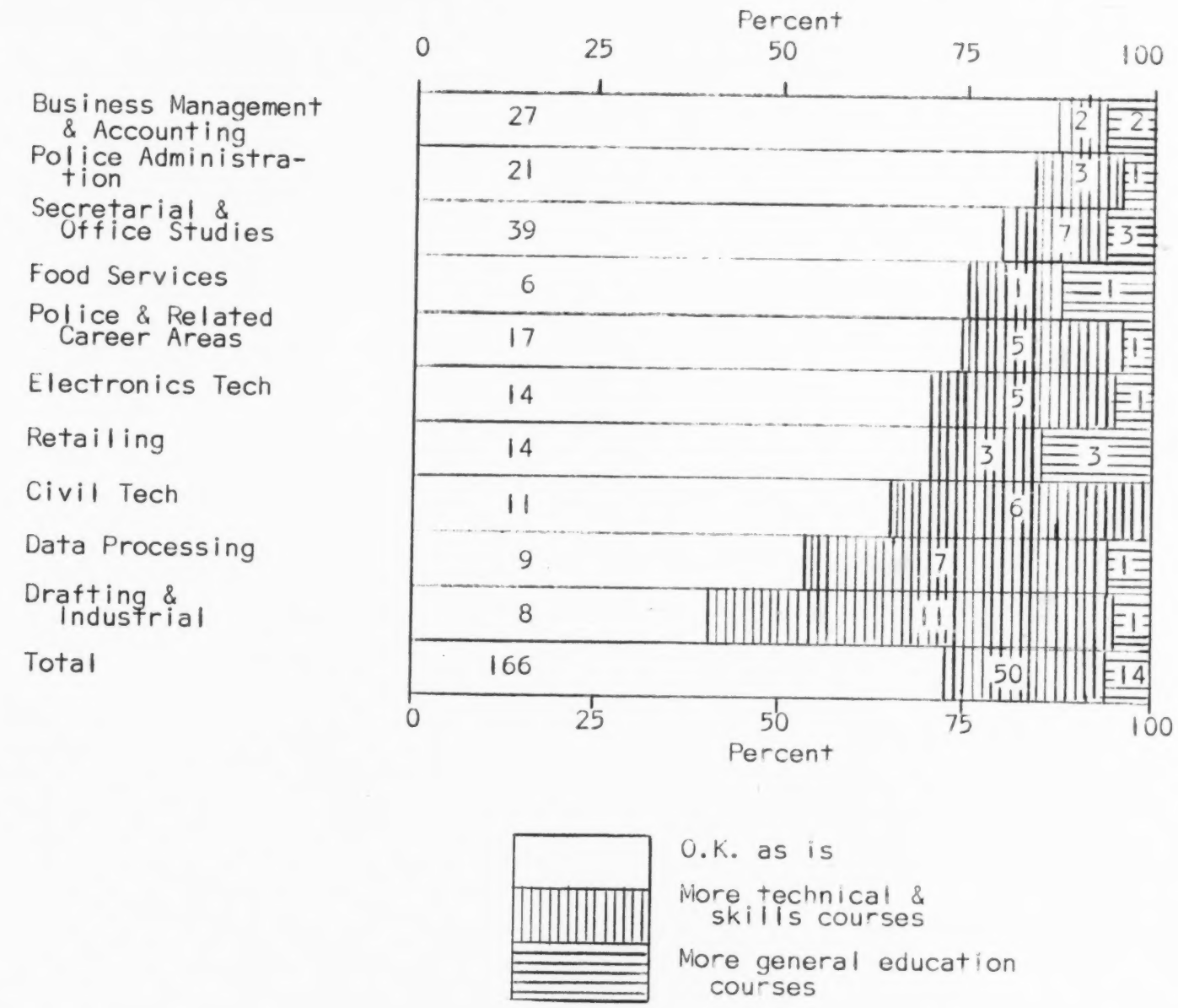

Figure 5. Recommendations for Proportion of General and Technical Courses, by Curriculum Completed.

(Note.--The number within a row is the actual N to which the percentage corresponds. See Table 41.)

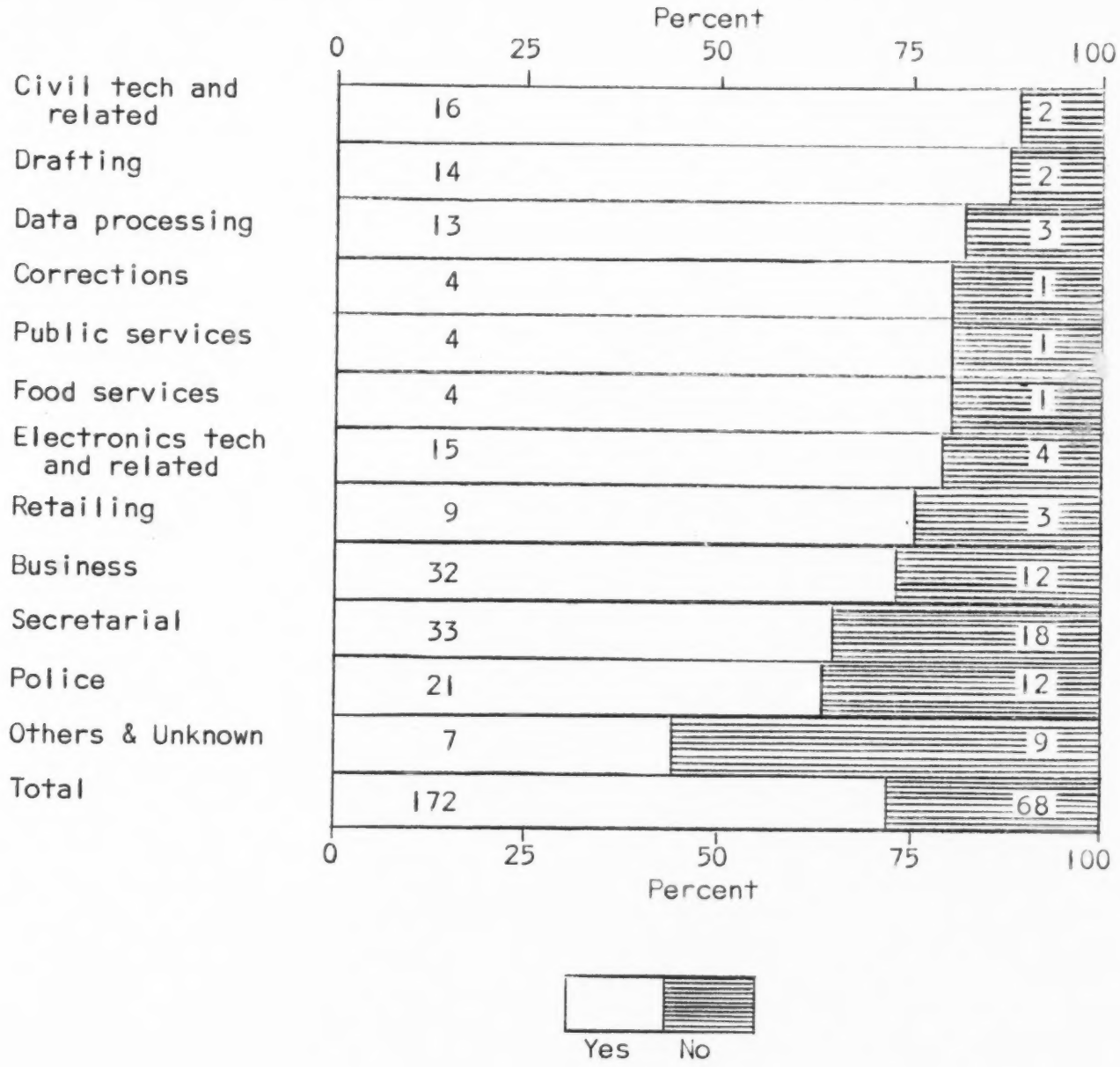

Figure 6. Reported Advantage of Associate Degree for Employment, by Job Areas.

(Note.--The number within a row is the actual N to which the percentage corresponds. See Table 43.)

1. Technical knowledge and understanding
2. Job or learning skills
3. Interpersonal relations
4. Self-understanding
5. Knowledge about job activities and career opportunities in your field
6. Overall

Overall, ratings were favorable, with each objective receiving from three-fifths to four-fifths superior or good ratings. "Technical knowledge" and "overall" objectives were rated highest, and "knowledge of career opportunities" was rated lowest.

Considerable variations occurred in the ratings by graduates from respective curricular areas (Table 44). Overall, Secretarial & Office Studies graduates were most positive, and Electronics graduates were least positive. "Knowledge of job and career opportunities" was rated as superior or good by less than two-fifths of the graduates from 4 of the 10 curricular areas--Civil Tech (26 percent), Data Processing (35 percent), Drafting & Industrial (36 percent), and Electronics Tech (39 percent). These low ratings of graduates' knowledge of job and career opportunities merit immediate attention from appropriate faculty and staff. Certainly, additional relevant emphasis on career guidance and cooperative work experiences should help.

The objectives of "interpersonal relations" and "self-understanding" did not appear to have been fully realized by graduates from several technological and industrial programs. Either "interpersonal relations" or "self-understanding" was rated as superior or good by less than three-fifths of the graduates from the Technologies, Drafting, and Data Processing. Whether it is appropriate to fit these objectives into curricula where the demand for technical skills is high is a question which should be faced squarely by community college educators, but that question should be viewed in full perspective of all student ratings.

"Technical knowledge" was rated as higher than average by Secretarial & Office Studies graduates (92 percent) and lower than average by Retailing and Food Services graduates (70 and 71 percent). "Job and learning skills" were rated relatively high by Secretarial & Office Studies graduates (94 percent) and relatively low by graduates in Civil Tech (58 percent), Drafting (64 percent), Business Management & Accounting (65 percent), and Food Services (57 percent). It must be remembered that because graduates from program A rated an objective higher than did graduates from program B, it does not mean that this objective was in fact better realized by program A graduates. Still, educators at the College should consider from these and other data whether program modifications are needed, what the modifications should be, and how to implement them.

Graduates' ratings of the seven aspects of their education at H.A.C.C. appeared to be stable across groups by year of graduation from 1966 to 1970, when graduates from all programs were grouped together (Table 45). The quality of education at the College, as discerned from these data, has been stable and generally positive.

Graduates were also asked if they would recommend H.A.C.C. to a person seeking to complete the same program that they had studied. Overall, 91 percent said "yes" (Table 46). There were minor variations in responses by men and women and by year of graduation. Some variations were noted in the recommendations by curricular groups.

Food Services, Electronics, Data Processing, and Drafting graduates gave somewhat weaker responses than the average; still, at least four out of five graduates from these curricular groups made a positive recommendation of the College (see Figure 7). The relationships among the overall ratings of the community college education (Table 44), the advantage of the associate degree for employment (Table 43), and recommendations of the College did not always follow a logical pattern. Secretarial & Office Studies graduates rated their program quite high but did not feel the degree was of as much value as did graduates in other career areas. Drafting & Industrial graduates rated the importance of the degree high, but were less positive about their education. The Food Services graduates gave a high rating to their education but indicated a relatively lower recommendation.

It must be borne in mind that a graduate's rating of the program he completed may reflect a number of conditions in his milieu, such as his satisfaction while completing the program, the importance he places on the degree in getting a job, his current or past job satisfaction, availability of alternative job preparation programs, and his current aspirations (which may have changed following his earning the associate degree).

Employers' Evaluations

Personnel officers were asked to indicate whether they were able to get necessary information from the College about graduates whom they might employ and to note any advantages in hiring associate degree graduates.

Nearly all employers (96 percent) reported they were able to obtain the information they needed about H.A.C.C. graduates during the employment process (Table 47). However, it should be noted that this rating was obtained only from employers of H.A.C.C. graduates. It is not known if other potential employers have had access to similar information.

Most personnel officers noted that there were advantages to employing associate degree graduates. Overall, more than half of them

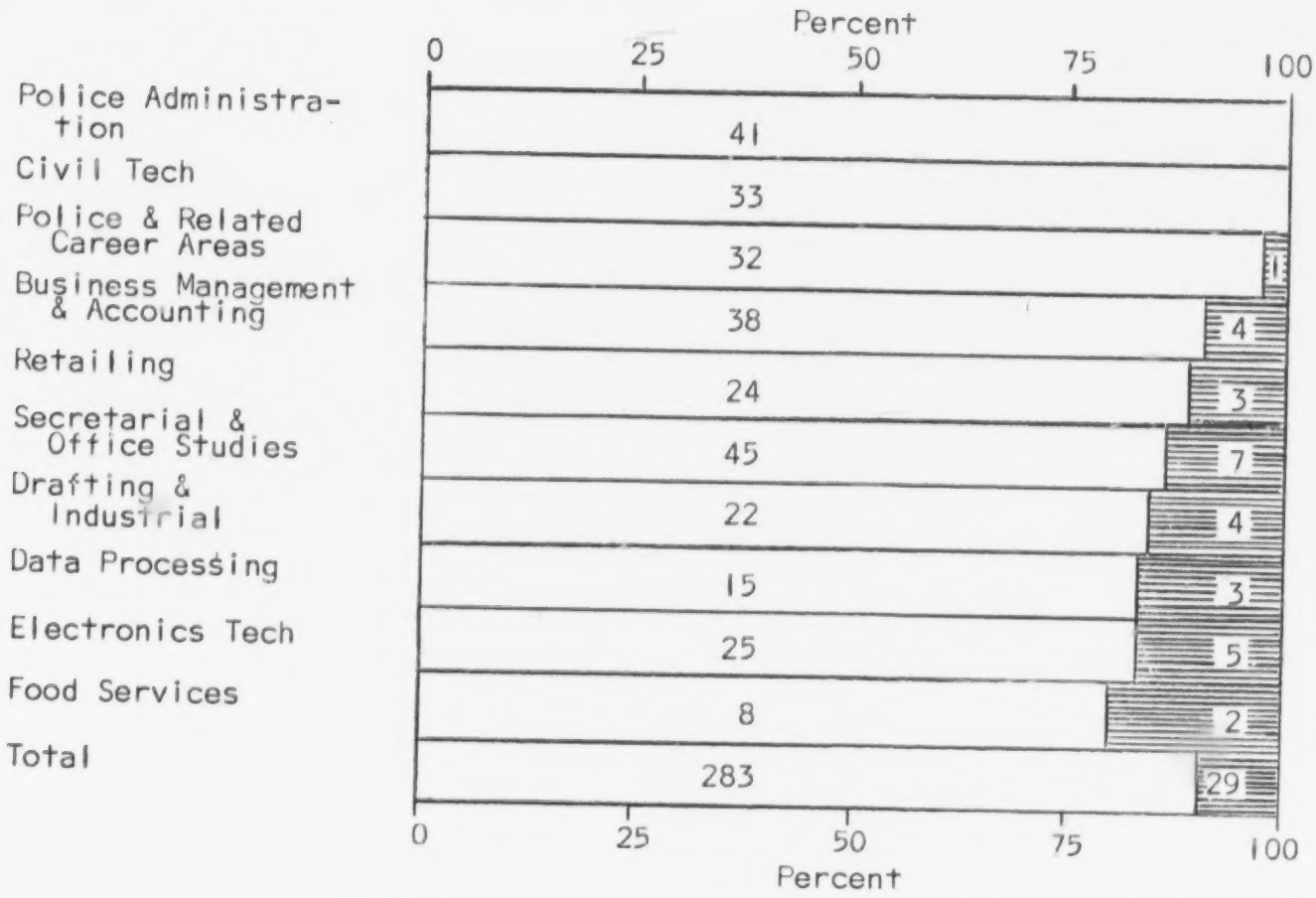

Figure 7. Recommendation of H.A.C.C., by Curriculum Completed.

(Note.--The number within a row is the actual N to which the percentage corresponds. See Table 46.)

noted that graduates are both "more productive and more trainable than nongraduates" and "expected to progress more rapidly in job responsibility and salary than are nongraduates." Fewer than one-fifth reported that having the associate degree makes little difference in productivity or job progress (Table 48).

Some differences in employer responses by job areas were noted, although small sample sizes sometimes make the results of doubtful reliability. Responses were most positive in job areas of civil tech, drafting, data processing, and secretarial. Reasons for low employer ratings of the associate degree need to be explored by appropriate College staff. Certainly, channels of communication must be developed to discover and transmit information to support the development of curricula which are most appropriate to the student and employer.

SUMMARY AND RECOMMENDATIONS

Summary of Findings

The major findings of this study are highlighted in the comments which follow.

1. Graduates were predominantly men (three-fourths) and under age 25.

2. Seven-tenths of the graduates were employed full-time. In addition, one-fifth of the women were housewives, and one-fifth of the men were engaged in full-time study.

3. Nine-tenths of the employed graduates were in jobs judged to be congruent with the curricula they completed.

4. More than four-fifths were employed in South-Central Pennsylvania, and nine-tenths were employed within Pennsylvania.

5. More than half continued their education in some way after completing the associate degree. One-fourth took courses at four-year colleges, and one-tenth earned bachelor's degrees. One-fifth participated in employer-training programs. Employers often paid for educational expenses.

6. The average salary reported was over $6900. For 1966 graduates, salaries averaged nearly $8100, while 1970 graduates' salaries averaged nearly $6300. Major differences in salaries were noted by job or curricular areas and by sex.

7. Graduates rated their job satisfaction as high, overall. However, ratings by several curricular groups suggested that some students were less satisfied.

8. Employers generally preferred graduates to have specialized training at the College, but for some job areas a combination of specialized training and general education was preferred.

9. Employers' evaluations of graduates were generally high, but some differences among job areas and among criteria within job areas were noted.

10. Employers generally rated on-the-job training as important, but ratings of the need for additional college attendance varied among curricular groups.

11. Graduates did not view the College's job placement service as either strongly positive or negative, but a number of graduates from some curricular areas rated it as less than adequate. The writers suggest that the placement service be reviewed carefully by College staff.

12. Graduates evaluated their cooperative work experience quite positively.

13. Over seven-tenths of the graduates estimated that the associate degree was helpful in obtaining their job.

14. The large majority of the graduates rated their education at H.A.C.C. as superior or good. Ratings varied considerably among curricular groups.

15. Nine-tenths of the graduates stated they would recommend the College to a person seeking to complete the same program they had studied.

16. Most employers noted distinct advantages to hiring associate degree graduates, but the results varied by job areas.

Comments and Recommendations

This study was an attempt to get information about the activities of career graduates, their perceptions of the College and their employment, and the perceptions of employers about the graduates and their associate degree education. The writers believe firmly that the community college must be accountable for its educational programs, using criteria based upon events which occur after the students' graduation. They suggest several areas of concern which require further investigation or development. These suggestions grow out of the findings of this study and earlier research and include the following areas: career information and guidance system, job placement service, educational objectives, and continuing education.

Career information and guidance. While this study was not intended to document the need for a system of career information and guidance, results obtained here and from earlier studies do support such a need. Community college students who enroll in career programs are oriented toward jobs and not abstract learning. They are often quite naive about the world of work, either in terms of entry jobs or career progression ladders. Yet, we attend first to their general education "needs" which we assume and impose from our own educational traditions. Meanwhile, we neglect increasingly-documented needs for knowledge about jobs and careers and how those needs can be related to job preparation opportunities.

Why this neglect? It appears to grow from several sources: (1) a lack of experience by community college staff in the world of work, other than academic employment; (2) the fact that colleges traditionally have not attempted to educate students about jobs, careers and career progressions in specific fields, and (3) the lack of a body of specific information about jobs and knowledge of how employment relates to educational and human development. Each of these limitations appears to be subject to modification. Some staff members have extensive employment experience in commerce and industry, yet we do not always harness their experiences and abilities. There is no substantive reason why students--and colleges--cannot develop and implement credit for career exploration activities. And there are a number of educators, such as Dr. Kenneth Hoyt at the University of Maryland, who are exploring avenues to develop information about jobs which is both educationally sound and relevant to specific geographic regions. Admittedly, the job of developing adequate career information and utilizing it in a career guidance program is staggering.

Community college educators must commit more financial and staff resources to education about jobs and careers. It should be an issue of highest priority. Research to date points to an increasing irreversibility of vocational choice (Crites, 1969). For many students, the community college is the last major opportunity for implementing vocational choice.

The role of cooperative employment has been commended as educational enrichment in vocational experience by Salatino (1971) and by our own students. We need to investigate further its potential as a learning tool for community college students and as an approach to career information.

Job placement service. A job placement service at a community college is a logical extension of concern for career education, and it can be viewed as an extension of a career information and guidance system.

Job placement requires the assistance of instructors and student services personnel, and this dual responsibility is acknowledged at most community colleges, in rhetoric at least. However, the responsibility for developing a total system of job placement and for coordinating its many facets must be assigned to one person. Otherwise, "everybody's business becomes nobody's business." Under a structure of centralized coordination by a placement officer, vocational counseling would still be carried out by counselors and faculty. Division chairmen and faculty would be involved in course development and employer contacts. The placement officer would coordinate the gathering of appropriate data from student records, college reports, counseling interviews, and employers. He would assist in disseminating appropriate information back to those who shape admissions and course placement policy, educational programs, and student services. He

would also coordinate contacts with various employer agencies. And he would carry out periodic follow-up studies of former students and help to develop a total follow-up strategy with the office of institutional research.

Educational objectives. For a college to direct its resources effectively, it must first have developed specific educational objectives. Evaluations and follow-up studies should relate to these objectives. In the words of Medsker,"...evaluation of educational program effectiveness is meaningful only after it is known whether educational programs served their intended purposes (1971)." Larkin (1971) called for developing specific program impact objectives as future targets for each career offering. Such objectives should include specific manpower needs, as well as target populations to be brought into the work force.

The College must have a firm knowledge of characteristics of students enrolled in their various programs. Input differences may affect outcomes as well as alter production activities (Astin and Panos, 1969). It is generally agreed that instruction and student services are affected by student characteristics among the various educational programs. The extent to which these are shaped by the College, by feeder schools, and by other societal and economic forces is well recognized.

This study of graduates is the beginning of a data base to understand and evaluate College outputs. However, when evaluating outputs, it is necessary to compare progress of associate degree graduates in given occupations with the progress of non-graduates, non-matriculants, and other graduates (Hawkridge, 1970).

Continuing education. Because continuing education is so highly rated by employers and is fairly common among career graduates, the College should investigate how it might offer its services in a post-graduate program, as part of a regular curriculum, or through its Urban Development Institute. Due to the fact that many students and some employers showed little desire for general education as a part of their associate degree program, the College might investigate the extent to which such requirements are justified and the extent to which they might be postponed until after the student has taken full-time employment. A student might be certified by the College as having completed his technical training, enter employment, and then earn his associate degree by completing general education requirements during evenings or weekends. Whether this arrangement would result in more meaningful education remains to be seen, but we do know that some students are not satisfied with the present arrangement. We need to learn for whom and under what conditions postponing the general education aspects of the associate degree would result in a better education. We now know that many "dropouts" obtain jobs for which they apparently were prepared at the community college, but we don't know how often or how effectively the process occurs.

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Appendix

PRESENTATION OF DATA

Use of Percentages

Percentages are used as a common transformation to facilitate comparisons between various categories. The reader should note the actual N upon which the percentage is based. Although some categories do have a small N, the entire population was surveyed, and there was a high rate of response.

Data Base for Tables

With the exception of Table 1, all tables are based on data received from respondents.

Abbreviated Headings Used on Tables

H.A.C.C. Curriculum	Abbreviation
Police Administration	Police Adminis.
Police & Related Career Areas	Police & Related
Civil Technology	Civil Tech
Electronics Technology	Electrncs Tech
Drafting & Industrial	Draftng, Indstrl.
Secretarial & Office Studies	Secretl, Off. Stud.
Business Management & Accounting	Bus. Mgmt. & Acctg.
Retailing	Retailing
Food Services	Food Services
Data Processing	Data Processing

Job Area	Abbreviation
Business	Business
Secretarial	Secretl.
Civil technology and related areas	Civl tech & related
Electronics technology & related areas	Elec. tech & related
Drafting	Drafting
Police	Police
Corrections	Correctns
Public services	Public services
Food services	Food services
Data processing	Data processng
Retailing	Retailing
Others and Unknown	Others & Unknown

TABLE I
NUMBER OF CAREER GRADUATES, BY CURRICULUM AND YEAR OF GRADUATION

	1966	1967	1968	1969	1970[1]	Total
Police Administration	0	7	8	9	26	50
Police & Related Career	0	0	8	17	17	42
Civil Technology	1	8	8	10	12	39
Electronics Technology	3	5	6	17	8	39
Drafting & Industrial	0	0	8	13	14	35
Secretarial & Office Studies	11	13	17	15	23	79
Business Management & Accounting	13	11	6	12	6	48
Retailing	0	9	8	11	8	36
Food Services	0	0	4	9	2	15
Data Processing	0	0	0	5	15	20
Others	0	0	0	0	2	2
Total	28	53	73	118	133	405

[1]Does not include 25 summer, 1970, graduates.

TABLE 2
CAREER GRADUATE RESPONDENTS, BY CURRICULUM AND YEAR OF GRADUATION

	1966		1967		1968		1969		1970		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Police Administration	0	0	6	85.7	5	62.5	8	88.8	22	84.6	41	82.0
Police & Related Career	0	0	0	0	7	87.5	13	76.5	13	76.5	33	78.6
Civil Technology	1	100.0	5	62.5	8	100.0	10	100.0	10	83.3	34	87.2
Electronics Technology	3	100.0	4	80.0	3	50.0	15	88.2	5	62.5	30	76.9
Drafting & Industrial	0	0	0	0	7	87.5	10	76.9	9	64.3	26	74.3
Secretarial & Office Studies	4	36.4	7	53.8	12	70.6	13	86.7	17	73.9	53	67.1
Business Management & Accounting	12	92.3	9	81.8	6	100.0	12	100.0	4	66.7	43	89.6
Retailing	0	0	7	77.8	8	100.0	8	72.7	6	75.0	29	80.6
Food Services	0	0	0	0	2	50.0	7	77.8	2	100.0	11	73.3
Data Processing	0	0	0	0	0	0	5	100.0	13	86.7	18	90.0
Total	20	71.4	38	71.7	58	79.5	101	85.6	101	75.9	318	78.5

TABLE 3
RESPONSE RATE OF EMPLOYERS

	Number Mailed	Number Responses	Percent Responses
Personnel Officers	159	111	69.8
Supervisors	199	172	86.4

TABLE 4
CURRICULUM COMPLETED AT H.A.C.C. BY MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
Police Administration	40	17.3	1	1.1	41	12.9
Police and Related Career						
Public Service	3	1.3	4	4.6	7	2.2
Police Administration	23	9.9	1	1.1	24	7.5
Corrections	2	.9	0	0	2	.6
Total	28	12.1	5	5.7	33	10.3
Civil Technology	34	14.7	0	0	34	10.7
Electronics Technology	30	13.0	0	0	30	9.4
Drafting and Industrial						
Architectural Drafting	1	.4	0	0	1	.3
Civil Engineering Drafting	2	.9	0	0	2	.6
Industrial Electrical	5	2.2	0	0	5	1.6
Industrial Drafting	17	7.4	0	0	17	.5
Electronic Service & Merchandising	1	.4	0	0	1	.3
Total	26	11.3	0	0	26	3.3
Secretarial & Office Studies						
Executive Secretarial	1	.4	49	56.3	50	15.7
Office Studies	0	0	3	3.4	3	.9
Total	1	.4	52	59.7	53	16.6
Business Mgmt. & Accounting						
Business Career*	10	4.3	1	1.1	11	3.4
Accounting	13	5.6	4	4.6	17	5.3
Business Management	14	6.1	1	1.1	15	4.7
Total	37	16.0	6	6.8	43	13.4
Retailing	17	7.4	12	13.8	29	9.1
Food Services	8	3.5	3	3.4	11	3.4
Data Processing	10	4.3	8	9.2	18	5.7
Total	231	100.0	87	100.0	318	100.0

*1966 graduates not separated as Accounting and Business Management.

TABLE 5
AGES* OF MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
25 or under	176	77.1	83	96.5	259	82.5
26 to 30	32	14.0	2	2.3	34	10.8
Over 30	20	8.8	1	1.2	21	6.7
Total	228	100.0	86	100.0	314	100.0

*Ages as of December 31, 1970

TABLE 6
AGES BY JOB AREAS*

	Business		Secretl.		Civil tech & related		Elec.tech & related		Drafting		Police	
	N	%	N	%	N	%	N	%	N	%	N	%
25 or under	37	84.1	51	100.0	17	89.5	11	57.9	16	100.0	12	37.5
26 to 30	6	13.6	0	0	2	10.5	8	42.1	0	0	6	18.8
Over 30	1	2.3	0	0	0	0	0	0	0	0	14	43.8
Total	44	100.0	51	100.0	19	100.0	19	100.0	16	100.0	32	100.0

	Correctns		Public services		Food services		Data Processng		Retailing		Others & Unknown		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
25 or under	3	60.0	2	40.0	5	100.0	16	100.0	11	84.6	16	93.8	196	81.3
26 to 30	1	20.0	1	20.0	0	0	0	0	2	15.4	0	0	26	10.8
Over 30	1	20.0	2	40.0	0	0	0	0	0	0	1	6.3	19	7.9
Total	5	100.0	5	100.0	5	100.0	16	100.0	13	100.0	16	100.0	241	100.0

*Age as of December 31, 1970.

TABLE 7
MARITAL STATUS OF MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
Single	115	50.4	46	52.9	161	51.1
Married	110	48.2	40	46.0	150	47.6
Other	3	1.3	1	1.1	4	1.3
Total	228	100.0	87	100.0	315	100.0

TABLE 8
EMPLOYMENT STATUS OF MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
Employed full time	156	67.8	61	70.1	217	68.5
Employed part time	6	2.6	4	4.6	10	3.1
In military services	19	8.3	1	1.1	20	6.3
Housewife	0	0	17	19.5	17	5.3
Student full time	43	18.7	4	4.6	47	14.8
Other	6	2.6	0	0	6	1.9
Total	230	100.0	87	100.0	317	100.0

TABLE 9
EMPLOYMENT STATUS, BY CURRICULUM COMPLETED

	Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
Employed full time	28	70.0	20	60.6	19	55.9	19	63.3	17	65.4
Employed part time	1	2.5	0	0	1	2.9	2	6.7	1	3.8
In military services	2	5.0	3	9.1	3	8.8	2	6.7	5	19.2
Housewife	0	0	3	9.1	0	0	0	0	0	0
Student full time	9	22.5	6	18.2	11	32.4	6	20.0	2	7.7
Other	0	0	1	3.0	0	0	1	3.3	1	3.8
Total	40	100.0	33	100.0	34	100.0	30	100.0	26	100.0

	Secretl, Off Stud.		Bus.Mgmt. & Acctg.		Retailing		Food Services		Data Processng		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Employed full time	41	77.4	32	74.4	19	65.5	6	54.5	16	88.9	217	68.5
Employed part time	1	1.9	3	7.0	0	0	0	0	1	5.6	10	3.2
In military services	0	0	2	4.7	2	6.9	1	9.1	0	0	20	6.3
Housewife	10	18.9	1	2.3	4	13.8	0	0	0	0	18	5.7
Student full time	1	1.9	5	11.6	3	10.3	4	36.4	0	0	47	14.8
Other	0	0	0	0	1	3.4	0	0	1	5.6	5	1.6
Total	53	100.0	43	100.0	29	100.0	11	100.0	18	100.0	317	100.0

TABLE 10
NUMBER OF FULL-TIME JOBS HELD, BY H.A.C.C. CURRICULUM COMPLETED

	Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
One	22	78.6	12	52.2	16	76.2	12	60.0	14	70.0
Two	5	17.9	11	47.8	3	14.3	6	30.0	6	30.0
Three or more	1	3.6	0	0	2	9.5	2	10.0	0	0
Total	28	100.0	23	100.0	21	100.0	20	100.0	20	100.0

	Secretl, Off.Stud.		Bus.Mgmt. & Acctg.		Retailing		Food Services		Data Processng		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
One	28	56.0	22	61.1	12	60.0	4	57.1	15	88.2	157	64.9
Two	17	34.0	11	30.6	6	30.0	2	28.6	2	11.8	69	28.5
Three or more	5	10.0	3	8.3	2	10.0	1	14.3	0	0	16	6.6
Total	50	100.0	36	100.0	20	100.0	7	100.0	17	100.0	242	100.0

TABLE 11
JOB LOCATION, BY CURRICULUM COMPLETED

	South-Central Penna.		Outside South-Central Penna.		Out of State		Total
	N	%	N	%	N	%	N
Police Administration	25	86.2	2	6.9	2	6.9	29
Police & Related Career	20	100.0	0	0	0	0	20
Civil Technology	11	64.7	2	11.8	4	23.5	17
Electronics Technology	13	61.9	5	23.8	3	14.3	21
Drafting & Industrial	21	95.5	0	0	1	4.5	22
Secretarial & Office Studies	38	82.6	3	6.5	5	10.9	46
Business Management & Accounting	28	87.5	0	0	4	12.5	32
Retailing	17	94.4	1	5.6	0	0	18
Food Services	4	80.0	0	0	1	20.0	5
Data Processing	15	88.2	1	5.9	1	5.9	17
Total	192	84.6	14	6.2	21	9.3	227

TABLE 12
CONGRUENCE BETWEEN JOB AND CURRICULUM, BY CURRICULUM COMPLETED

	Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
Congruent	25	89.3	20	83.3	19	100.0	16	72.7	21	95.5
Not congruent	2	7.1	4	16.7	0	0	4	18.2	1	4.5
Somewhat, or indeterminate	1	3.6	0	0	0	0	2	9.1	0	0
Total	28	100.0	24	100.0	19	100.0	22	100.0	22	100.0

	Secretl, Off.Stud.		Bus.Mgmt. & Acctg.		Retailing		Food Services		Data Processng		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Congruent	50	98.0	31	86.1	15	68.2	6	85.7	13	76.5	216	87.1
Not congruent	0	0	3	8.3	4	18.2	1	14.3	3	17.6	22	8.9
Somewhat, or indeterminate	1	2.0	2	5.6	3	13.6	0	0	1	5.9	10	4.0
Total	51	100.0	36	100.0	22	100.0	7	100.0	17	100.0	248	100.0

TABLE 13
COMPARISON OF JOB AREA TO CURRICULUM COMPLETED

Police Administration

Job area	N	%
Police	22	78.6
Corrections	2	7.1
Business	1	3.6
Public services	1	3.6
Others	2	7.1
Total	28	100.0

Police & Related Career

Job area	N	%
Police	11	47.8
Public services	4	17.4
Corrections	2	8.7
Business	1	4.3
Food services	1	4.3
Others	3	13.0
Unknown	1	4.3
Total	23	100.0

Civil Tech

Job area	N	%
Civil tech and related	17	89.5
Electronics tech and related	1	5.3
Drafting	1	5.3
Total	19	100.0

Electronics Tech

Job area	N	%
Electronics tech and related	15	71.4
Business	2	9.5
Corrections	1	4.8
Others	3	14.3
Total	21	100.0

Drafting & Industrial

Job area	N	%
Drafting	15	68.2
Electronics tech and related	3	13.6
Civil tech and related	2	9.1
Business	1	4.5
Others	1	4.5
Total	22	100.0

Business Mgmt. & Accounting

Job area	N	%
Business	27	75.0
Data processing	4	11.1
Retailing	1	2.8
Others	3	8.3
Unknown	1	2.8
Total	36	100.0

Secretarial & Office Studies

Job area	N	%
Secretarial	47	92.2
Business	4	7.8
Total	51	100.0

Retailing

Job area	N	%
Retailing	12	54.5
Business	5	22.7
Secretarial	3	13.6
Others	2	9.1
Total	22	100.0

Food Services

Job area	N	%
Food services	4	66.7
Secretarial	1	16.7
Others	1	16.7
Total	6	100.0

Data Processing

Job area	N	%
Data processing	13	76.5
Business	3	17.6
Secretarial	1	5.9
Total	17	100.0

TABLE 14
JOB TITLES REPORTED, BY CURRICULUM COMPLETED

Police Administration

Job title	N	%
Policeman, patrolman, traffic safety officer	11	37.9
Police unit supervisor	9	31.0
Corrections	4	13.8
Instructional assistant	1	3.4
Insurance adjustor	1	3.4
Guard	1	3.4
Warehouseman	1	3.4
Miscellaneous	1	3.4
Total	29	100.0

Secretarial & Office Studies

Job title	N	%
Secretary, receptionist, stenographer, clerk	44	86.2
Accounting assistant, clerk, bookkeeper, cost analyst	2	3.9
Teacher	2	3.9
Instructional assistant	2	3.9
Engineering technician, aide, assistant, construction inspector	1	2.0
Total	51	100.0

Police & Related Career

Job title	N	%
Policeman, patrolman, traffic safety officer	8	34.8
Corrections	5	21.7
Administration	2	8.7
Insurance adjustor	2	8.7
Photogrammetrist	1	4.3
Police unit supervisor	1	4.3
Waitress	1	4.3
Truck driver	1	4.3
Research assistant	1	4.3
Miscellaneous	1	4.3
Total	23	100.0

Business Management & Accounting

Job title	N	%
Accounting assistant, clerk, bookkeeper, cost analyst	15	42.9
Salesman, representative	4	11.4
Supervisor, office manager	3	8.6
Teacher	2	5.7
Systems and procedures analyst	2	5.7
Warehouseman	2	5.7
Department manager	1	2.9
Sales engineering	1	2.9
Self-employed, proprietor, owner	1	2.9
Advertising	1	2.9
Miscellaneous	3	8.6
Total	35	100.0

Civil Tech

Job title	N	%
Engineering technician, aide, assistant, construction inspector	10	52.6
Engineer	6	31.6
Draftsman	2	10.5
Photogrammetrist	1	5.3
Total	19	100.0

Food Services

Job title	N	%
Chef	2	33.3
Food services administrator	1	16.7
Secretary, receptionist, stenographer, clerk	1	16.7
Waitress	1	16.7
Miscellaneous	1	16.7
Total	6	100.0

Electronics Tech

Job title	N	%
Engineering technician, aide, assistant, construction inspector	7	31.8
Engineer	2	9.1
Repairman	2	9.1
Management trainee	1	4.5
Instructional assistant	1	4.5
Service manager	1	4.5
Handyman	1	4.5
Truck driver	1	4.5
Research assistant	1	4.5
Airlines officer	1	4.5
Unemployed	1	4.5
Miscellaneous	3	13.6
Total	22	100.0

Retailing

Job title	N	%
Buyer, assistant buyer	5	21.7
Department manager	4	17.4
Management trainee	3	13.0
Secretary, receptionist, stenographer, clerk	3	13.0
Accounting assistant, clerk, bookkeeper, cost analyst	2	8.7
Insurance agent	2	8.7
Salesman, representative	1	4.3
Waitress	1	4.3
Unemployed	1	4.3
Miscellaneous	1	4.3
Total	23	100.0

Drafting & Industrial

Job title	N	%
Draftsman	15	65.2
Engineering technician, aide, assistant, construction inspector	5	21.7
Accounting assistant, clerk, bookkeeper, cost analyst	1	4.3
Unemployed	1	4.3
Miscellaneous	1	4.3
Total	23	100.0

Data Processing

Job title	N	%
Programmer	11	64.7
Accounting assistant, clerk, bookkeeper, cost analyst	3	17.6
Operator, data tabulations and computer	1	5.9
Systems & procedures analyst	1	5.9
Secretary, receptionist, stenographer, clerk	1	5.9
Total	17	100.0

TABLE 15
CONGRUENCE BETWEEN JOB AND CURRICULUM
FOR MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
Congruent	150	87.2	66	86.8	216	87.1
Not congruent	13	7.6	9	11.8	22	8.9
Somewhat, or indeterminate	9	5.2	1	1.3	10	4.0
Total	172	100.0	76	100.0	248	100.0

TABLE 16
CONTINUED EDUCATION, BY CURRICULUM COMPLETED

	Police Adminis. (N=41)		Police & Related (N=33)		Civil Tech (N=34)		Electrncs Tech (N=30)		Draftng, Industrl. (N=26)	
	N	%	N	%	N	%	N	%	N	%
Attended 4-yr. college or university	11	26.8	12	36.4	12	35.3	15	50.0	3	11.5
Earned bachelor's degree or higher	5	12.2	4	12.1	6	17.6	0	0	0	0
Completed employer-training program	10	24.4	11	33.3	4	11.8	10	33.3	3	11.5
Other	6	14.6	6	18.2	5	14.7	6	20.0	5	19.2
None	12	29.3	11	33.3	10	29.4	4	13.3	17	65.4

	Secreti, Off.Stud. (N=53)		Bus.Mgmt. & Acctg. (N=43)		Retailing (N=29)		Food Services (N=11)		Data Processng (N=18)		Total (N=318)	
	N	%	N	%	N	%	N	%	N	%	N	%
Attended 4-yr. college or university	1	1.9	14	32.6	4	13.8	4	36.4	0	0	76	23.9
Earned bachelor's degree or higher	2	3.8	11	25.6	2	6.9	0	0	0	0	30	9.4
Completed employer-training program	4	7.5	5	11.6	8	27.6	3	27.3	8	44.4	66	20.8
Other	4	7.5	6	14.0	3	10.3	2	18.2	1	5.6	44	13.8
None	42	79.2	13	30.2	12	41.4	2	18.2	9	50.0	132	41.5

TABLE 17
CONTINUED EDUCATION BY MEN AND WOMEN

	Males (N=231)		Females (N=87)		Total (N=318)	
	N	%	N	%	N	%
Attended 4-yr college or university	68	29.4	8	9.2	76	23.9
Earned bachelor's degree or higher	28	12.1	2	2.3	30	9.4
Completed employer-training program	53	22.9	13	14.9	66	20.8
Other	38	16.5	6	6.9	44	13.8
None	71	30.7	61	70.1	132	41.5

TABLE 18
FOUR-YEAR COLLEGES ATTENDED

Name of College	Number of Respondents Attending
American University	2
Arizona State University	1
California State University	1
Central Missouri State	2
Culinary Institute of America	1
Eastern Kentucky University	1
Elizabethtown College	4
Findlay College	1
Florida Atlantic University	1
Howard University	1
Indiana University of Penna.	4
Jacksonville University	1
Lafayette College	2
LaSalle College	1
Louisiana State University	1
Luther College of Bible and Liberal Arts	1
Marist College	1
Milwaukee School of Eningeering	1
Millersville State College	1
Penna. State University:	
University Park	9
Capitol Campus	32
University Center at Harrisburg	3
Rider College	2
Rochester Institute of Technology	2
Rutgers University	1
Shippensburg State College	3
Syracuse University	1
Temple University	1
Tri-State	1
University of Maryland	2
University of Nevada-Las Vegas	2
University of Oklahoma	1
University of Rochester	1
University of Virginia	1
Virginia Commonwealth University	5
West Virginia University	3
York College	4
Washington University	1
Total	103

TABLE 19
FOUR-YEAR COLLEGE CURRICULAR ENROLLMENTS, BY H.A.C.C. CURRICULUM*

Police Administration

4-yr. curriculum	N	%
Law Enforcement, Criminology, Corrections	8	61.5
Social Science, Behavioral Science, History	4	30.8
Liberal Arts	1	7.7
Total	13	100.0

Police & Related Career

4-yr. curriculum	N	%
Law Enforcement, Criminology, Corrections	7	50.0
Social Science, Behavioral Science, History	5	35.7
Business	1	7.1
Public Administration	1	7.1
Total	14	100.0

Civil Tech

4-yr. curriculum	N	%
Engineering and 4-year Technology	16	94.1
Social Science, Behavioral Science, History	1	5.9
Total	17	100.0

Electronics Tech

4-yr. curriculum	N	%
Engineering and 4-year Technology	13	86.7
Business	1	6.7
Law Enforcement, Criminology, Corrections	1	6.7
Total	15	100.0

Drafting & Industrial

4-yr. curriculum	N	%
Education, Industrial Arts	1	33.3
Engineering and 4-year Technology	1	33.3
Liberal Arts	1	33.3
Total	3	100.0

Secretarial & Office Studies

4-yr. curriculum	N	%
Education, Secondary Business	3	100.0

Business Mgmt. & Accounting

4-yr. curriculum	N	%
Business	18	81.8
Education, Secondary Others	2	9.1
Education, Secondary Business	1	4.5
Social Science, Behavioral Science, History	1	4.5
Total	22	100.0

Retailing

4-yr. curriculum	N	%
Education, Secondary Others	3	50.0
Business	2	33.3
Education, Secondary Business	1	16.7
Total	6	100.0

Food Services

4-yr. curriculum	N	%
Hotel or Food Services Administration	3	50.0
Social Science, Behavioral Science, History	2	33.3
Business	1	16.7
Total	6	100.0

Total

4-yr. curriculum	N	%
Engineering and 4-year Technology	30	30.3
Business	23	23.2
Law Enforcement, Criminology, Corrections	16	16.2
Social Science, Behavioral Science, History	13	13.1
Education, Secondary Business	5	5.1
Education, Secondary Others	5	5.1
Hotel or Food Services Administration	3	3.0
Liberal Arts	2	2.0
Education, Industrial Arts	1	1.0
Public Administration	1	1.0
Total	99	100.0

*No respondents in the Data Processing curriculum were enrolled in a four-year college.

TABLE 20
FOUR-YEAR COLLEGE CURRICULAR ENROLLMENTS OF MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
Business	21	23.9	2	18.2	23	23.2
Education, Industrial Arts	1	1.1	0	0	1	1.0
Education, Secondary Business	1	1.1	4	36.4	5	5.1
Education, Secondary Others	3	3.4	2	18.2	5	5.1
Engineering and 4-year Technology	30	34.1	0	0	30	30.3
Hotel or Food Services Administration	3	3.4	0	0	3	3.0
Law Enforcement, Criminology, Corrections	16	18.2	0	0	16	16.2
Liberal Arts	2	2.3	0	0	2	2.0
Public Administration	1	1.1	0	0	1	1.0
Social Science, Behavioral Science, History	10	11.4	3	27.3	13	13.1
Total	88	100.0	11	100.0	99	100.0

TABLE 21
REASONS FOR FURTHER EDUCATION, BY CURRICULUM COMPLETED

	Police Adminis. (N=41)		Police & Related (N=33)		Civil Tech (N=34)		Electrncs Tech (N=30)		Draftng, Indstrl. (N=26)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Prepare for job opportunities in present occupation	6	1.5	7	2	10	1	11	1	4	1
Improve skills in present occupation	6	1.5	6	3	6	3	9	2.5	3	2.5
Personal satisfaction and education	5	3	10	1	8	2	9	2.5	3	2.5
To change occupations	3	5	4	4	1	5	3	5	0	
Expected by employer	1	6	1	5.5	1	5	5	4	0	
Other	4	4	1	5.5	1	5	1	6	2	4

	Secretl, Off.Stud. (N=53)		Bus.Mgmt. & Acctg. (N=43)		Retailing (N=29)		Food Services (N=11)		Data Processng (N=18)		Total (N=318)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Prepare for job opportunities in present occupation	2	3.5	15	2	2	4	3	1.5	2	3.5	62	2
Improve skills in present occupation	2	3.5	7	3	3	2.5	1	3.5	4	1	47	3
Personal satisfaction and education	5	1	16	1	4	1	3	1.5	2	3.5	65	1
To change occupations	3	2	2	4.5	1	5.5	1	3.5	0		18	4
Expected by employer	0		2	4.5	3	2.5	0		3	2	16	5
Other	0		1	6	1	5.5	0		1	5	12	6

TABLE 22
REASONS FOR FURTHER EDUCATION, BY JOB AREAS

	Business (N=44)		Secretl. (N=52)		Civl tech & related (N=19)		Elec.tech & related (N=19)		Drafting (N=16)		Police (N=33)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Prepare for job opportunities in present occupation	13	1.5	1	4	11	1	8	3	3	1	10	2
Improve skills in present occupation	7	3	2	2.5	7	2.5	9	1.5	1	3	9	3
Personal satisfaction and education	13	1.5	5	1	7	2.5	9	1.5	1	3	11	1
To change occupations	3	4	2	2.5	1	5.5	2	5	0		2	5.5
Expected by employer	2	5	0		1	5.5	4	4	0		2	5.5
Other	1	6	0		2	4	1	6	1	3	5	4

	Correctns (N=5)		Public Services (N=5)		Food Services (N=5)		Data Processng (N=17)		Retailing (N=13)		Others & Unknown (N=17)		Total (N=245)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Prepare for job opportunities in present occupation	1	3	1	2.5	0		4	3.5	2	2	2	3.5	56	2
Improve skills in present occupation	1	3	1	2.5	0		6	1	1	4	2	3.5	46	3
Personal satisfaction and education	2	1	1	2.5	1	1.5	5	2	3	1	4	1	62	1
To change occupations	1	3	1	2.5	1	1.5	0		1	4	2	3.5	16	4.5
Expected by employer	0		0		0		4	3.5	1	4	2	3.5	16	4.5
Other	0		0		0		1	5	0		1	6	12	6

TABLE 23
REASONS FOR FURTHER EDUCATION OF MEN AND WOMEN

	Men (N=231)		Women (N=87)		Total (N=318)	
	N	Rank	N	Rank	N	Rank
Prepare for job opportunities in present occupation	58	1	4	4	62	2
Improve skills in present occupation	42	3	5	3	47	3
Personal satisfaction and education	55	2	10	1	65	1
To change occupations	12	5.5	6	2	18	4
Expected by employer	15	4	1	5	16	5
Other	12	5.5	0	6	12	6

TABLE 24
SALARIES OF FULL-TIME EMPLOYED GRADUATES, BY YEAR OF GRADUATION

	1966		1967		1968		1969		1970		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Up to 3,999	0	0	0	0	0	0	1	1.5	6	8.3	7	3.1
4,000-4,999	1	6.7	0	0	1	2.4	5	7.4	9	12.5	16	7.0
5,000-5,999	1	6.7	4	12.6	10	24.4	16	23.5	17	23.6	48	21.0
6,000-6,999	3	20.0	5	15.7	3	7.3	19	27.9	18	25.0	48	21.0
7,000-7,999	2	13.3	9	28.2	7	17.1	18	26.5	4	5.5	40	17.5
8,000-8,999	3	20.0	4	12.6	10	24.4	6	8.8	7	9.7	30	13.1
9,000-9,999	1	6.7	5	15.6	3	7.3	2	2.9	4	5.5	15	6.6
10,000-10,999	1	6.7	4	12.5	3	7.3	0	0	0	0	8	3.5
11,000-11,999	0	0	0	0	1	2.4	0	0	3	4.2	4	1.8
12,000 & over	3	20.0	1	3.1	3	7.3	1	1.5	4	5.5	12	5.3
Total	15	100.0	32	100.0	41	100.0	68	100.0	72	100.0	228	100.0
Median	$8082		$7856		$7874		$6682		$6286		$6906	
Median age	24		25		24		19		19		22	

TABLE 25
SALARIES OF FULL-TIME EMPLOYED GRADUATES, BY CURRICULUM COMPLETED

	Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
Up to 3,999	1	3.6	1	4.5	0	0	2	9.5	0	0
4,000-4,999	0	0	0	0	0	0	0	0	1	5.0
5,000-5,999	2	7.1	4	18.1	0	0	1	4.8	6	30.0
6,000-6,999	4	14.2	5	22.7	6	31.6	4	19.0	8	40.0
7,000-7,999	2	7.1	5	22.7	6	31.6	4	19.0	2	10.0
8,000-8,999	7	25.0	4	18.1	2	10.5	5	23.8	2	10.0
9,000-9,999	5	17.9	1	4.5	1	5.3	2	9.5	1	5.0
10,000-10,999	1	3.6	0	0	3	15.8	1	4.8	0	0
11,000-11,999	1	3.6	1	4.5	0	0	1	4.8	0	0
12,000 & over	5	17.9	1	4.5	1	5.3	1	4.8	0	0
Total	28	100.0	22	100.0	19	100.0	21	100.0	20	100.0
Median	$8665		$7249		$7436		$7749		$6299	
Median age	24		23		22		23		23	

	Secretl, Off.Stud.		Bus.Mgmt. & Acctg.		Retailing		Food Services		Data Processng		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Up to 3,999	1	2.3	0	0	0	0	1	16.7	1	6.3	7	3.1
4,000-4,999	8	18.7	1	3.1	3	14.3	2	33.3	1	6.3	16	7.0
5,000-5,999	19	44.2	7	21.9	6	28.6	0	0	3	18.8	48	21.0
6,000-6,999	10	23.2	3	9.4	2	9.5	1	16.7	5	31.3	48	21.0
7,000-7,999	3	7.0	9	28.1	5	23.8	1	16.7	3	18.8	40	17.5
8,000-8,999	1	2.3	4	12.5	2	9.5	1	16.7	2	12.5	30	13.1
9,000-9,999	1	2.3	4	12.5	0	0	0	0	0	0	15	6.6
10,000-10,999	0	0	1	3.1	2	9.5	0	0	0	0	8	3.5
11,000-11,999	0	0	0	0	0	0	0	0	1	6.3	4	1.8
12,000 & over	0	0	3	9.4	1	4.8	0	0	0	0	12	5.3
Total	43	100.0	32	100.0	21	100.0	6	100.0	16	100.0	228	100.0
Median	$5593		$7599		$6749		$5499		$6665		$6906	
Median age	21		25		22		21		22		22	

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TABLE 26
SALARIES OF MEN AND WOMEN

	Men		Women		Total	
	N	%	N	%	N	%
Up to 3,999	4	2.5	3	4.6	7	3.1
4,000-4,999	3	1.8	13	20.0	16	7.0
5,000-5,999	23	14.1	25	38.5	48	21.0
6,000-6,999	34	20.9	14	21.6	48	21.0
7,000-7,999	35	21.5	5	7.7	40	17.5
8,000-8.999	29	17.7	1	1.5	30	13.1
9,000-9,999	13	8.0	2	3.1	15	6.6
10,000-10,999	8	4.9	0	0	8	3.5
11,000-11,999	4	2.5	0	0	4	1.8
12,000 & over	10	6.1	2	3.1	12	5.3
Total	163	100.0	65	100.0	228	100.0
Median	$7538		$5672		$6906	
Median age	22		21		22	

TABLE 27
SALARIES OF FULL-TIME EMPLOYED GRADUATES, BY JOB AREAS

	Business		Secretl.		Civil tech & related		Elec.tech & related		Drafting		Police	
	N	%	N	%	N	%	N	%	N	%	N	%
Up to 3,999	1	2.4	2	4.5	0	0	1	5.3	0	0	0	0
4,000-4,999	3	7.3	10	22.7	0	0	1	5.3	0	0	0	0
5,000-5,999	6	14.6	19	43.2	1	5.3	0	0	5	35.7	2	6.5
6,000-6,999	6	14.6	10	22.7	6	31.6	3	15.8	7	50.0	4	12.9
7,000-7,999	12	29.2	2	4.5	6	31.6	3	15.8	2	14.2	6	19.4
8,000-8,999	6	14.6	0	0	2	10.5	5	26.0	0	0	7	22.6
9,000-9,999	3	7.3	1	2.3	1	5.3	2	10.2	0	0	5	16.1
10,000-10,999	1	2.4	0	0	2	10.5	2	10.2	0	0	1	3.2
11,000-11,999	0	0	0	0	0	0	1	5.3	0	0	0	0
12,000 & over	3	7.3	0	0	1	5.3	1	5.3	0	0	6	19.4
Total	41	100.0	44	100.0	19	100.0	19	100.0	14	100.0	31	100.0
Median	$7374		$5453		$7311		$8249		$6199		$8436	
Median age	22		21		23		24		21		28	

	Correctns		Public Services		Food Services		Data Processng		Retailing		Others & Unknown		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Up to 3,999	0	0	0	0	1	25.0	0	0	0	0	1	6.3	6	2.7
4,000-4,999	0	0	0	0	0	0	0	0	1	9.1	1	6.3	16	7.2
5,000-5,999	0	0	1	20.0	0	0	3	20.0	3	27.3	6	37.5	46	20.5
6,000-6,999	3	60.0	1	20.0	1	25.0	3	20.0	1	9.1	3	18.8	48	21.4
7,000-7,999	0	0	0	0	1	25.0	3	20.0	3	27.3	2	12.6	40	17.9
8,000-8,999	1	20.0	3	60.0	1	25.0	2	13.3	2	18.2	1	6.3	30	13.4
9,000-9,999	1	20.0	0	0	0	0	2	13.3	0	0	0	0	15	6.7
10,000-10,999	0	0	0	0	0	0	1	6.7	1	9.1	0	0	8	3.6
11,000-11,999	0	0	0	0	0	0	1	6.7	0	0	1	6.3	3	1.3
12,000 & over	0	0	0	0	0	0	0	0	0	0	1	6.3	12	5.4
Total	5	100.0	5	100.0	4	100.0	15	100.0	11	100.0	16	100.0	224	100.0
Median			$8167		$7000		$7624		$7582		$6000		$6925	
Median age	23		27		22		21		24		26		22	

TABLE 28
FREQUENCY OF RATING JOB SATISFACTION AS SUPERIOR OR GOOD, BY CURRICULUM COMPLETED

	Police Adminis.	Police & Related	Civil Tech	Electrncs Tech	Draftng, Indstrl.
Challenging work	26	20	15	15	14
Interesting work	28	21	15	14	15
Good relations with colleagues	26	21	18	16	18
Salary	17	11	13	10	11
Opportunity for advancement	16	12	12	8	9
Overall	25	20	12	14	13
Total raters	29	24	20	21	21

	Secretl, Off.Stud.	Bus.Mgmt. & Acctg.	Retailing	Food Services	Data Processng	Total N	Total %
Challenging work	33	24	19	6	13	185	77.4
Interesting work	33	26	17	6	13	188	79.3
Good relations with colleagues	46	31	20	5	14	215	90.3
Salary	33	21	14	4	7	141	59.2
Opportunity for advancement	24	22	9	3	7	122	51.5
Overall	37	26	18	5	11	181	76.4
Total raters	46	33	22	7	16	239	

TABLE 29
FREQUENCY OF RATING JOB SATISFACTION AS SUPERIOR OR GOOD, BY JOB AREA

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
Challenging work	32	33	13	14	11	33
Interesting work	33	34	14	14	11	33
Good relations with colleagues	40	47	17	16	12	30
Salary	29	33	13	11	6	18
Opportunity for advancement	26	24	12	8	5	20
Overall	32	37	12	14	8	32
Total raters	44	47	19	19	15	33

	Correctns	Public Services	Food Services	Data Processng	Retailing	Others & Unknown	Total N	Total %
Challenging work	4	5	3	15	10	9	182	78.1
Interesting work	3	5	3	14	10	10	184	79.7
Good relations with colleagues	4	5	2	14	11	13	211	90.9
Salary	2	3	3	9	6	8	140	60.3
Opportunity for advancement	2	4	1	10	5	4	121	52.4
Overall	2	5	3	14	10	11	180	77.9
Total raters	5	5	5	16	12	16	233	

TABLE 30
PERCENT RATING OF JOB SATISFACTION
AS SUPERIOR OR GOOD, BY MEN AND WOMEN

	Males (N=169)	Females (N=70)	Total (N=239)
Challenging work	79.3	72.9	77.4
Interesting work	81.0	75.4	79.3
Good relations with colleagues	87.5	97.1	90.3
Salary	57.1	64.3	59.2
Opportunity for advancement	54.5	44.3	51.5
Overall	76.0	77.1	76.4

TABLE 31
NUMBER OF GRADUATES EMPLOYED, BY JOB AREAS
(PERSONNEL OFFICERS)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
One	21	18	2	11	8	9
Two to four	3	5	3	1	1	1
Five or more	0	2	2	0	0	3
Total	24	25	7	12	9	13

	Correctns & pub.svc	Data processng	Retailing	Food services	Others & Unknown	Total N	Total %
One	5	2	5	0	3	84	75.7
Two to four	1	4	0	1	0	20	18.0
Five or more	0	0	0	0	0	7	6.3
Total	6	6	5	1	3	111	100.0

TABLE 32
NUMBER OF GRADUATES SUPERVISED, BY JOB AREAS
(SUPERVISORS)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
One	29	32	14	15	10	20
Two to four	1	3	3	0	3	2
Total	30	35	17	15	13	22

	Correctns & pub.svc	Data processng	Retailing	Food services	Others & Unknown	Total N	Total %
One	7	9	8	1	12	157	91.3
Two to four	1	2	0	0	0	15	8.7
Total	8	11	8	1	12	172	100.0

TABLE 33
TYPE OF EDUCATIONAL PREPARATION DESIRED, BY JOB AREAS
(PERSONNEL OFFICER)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
Skills, rather than general ed.	8	11	5	9	6	1
General ed, rather than skills	5	3	1	0	1	3
Either, or both	7	11	0	3	2	8
Total	20	25	6	12	9	12

	Correctns & pub.svc	Data processng	Retailing	Food services	Others & Unknown	Total N	Total %
Skills, rather than general ed.	2	5	2	0	0	49	48.5
General ed, rather than skills	1	0	1	0	0	15	14.9
Either, or both	2	1	0	1	2	37	36.6
Total	5	6	3	1	2	101	100.0

TABLE 34
EMPLOYER RATINGS OF GRADUATES AS SUPERIOR, GOOD, AND FAIR & POOR, BY JOB AREAS*

Business

	Supervisors (N=30)						Personnel Officers (N=23)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	5	16.7	20	66.7	5	16.7	7	33.3	12	57.1	2	9.5
Good relations with colleagues	11	36.7	16	53.3	3	10.0	9	40.9	12	54.5	1	4.5
Personal appearance and conduct	14	46.7	15	50.0	1	3.3	8	36.4	13	59.1	1	4.5
Readiness for additional responsibility	11	36.7	14	46.7	5	16.7	8	36.4	9	40.9	5	22.7
Ability to learn new tasks	13	43.3	14	46.7	3	10.0	8	36.4	14	63.6	0	0
Ability to accept and follow instructions	10	33.3	16	53.3	4	13.3	6	26.1	15	65.2	2	8.7
Dependability	11	36.7	16	53.3	3	10.0	10	45.5	9	40.9	3	13.6
Overall performance	8	26.7	18	60.0	4	13.3	6	27.3	15	68.2	1	4.5

Secretarial

	Supervisors (N=35)						Personnel Officers (N=21)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	17	48.6	14	40.0	4	11.4	6	30.0	14	70.0	0	0
Good relations with colleagues	23	65.7	12	34.3	0	0	11	52.4	10	47.6	0	0
Personal appearance and conduct	20	57.1	15	42.9	0	0	13	61.9	7	33.3	1	4.8
Readiness for additional responsibility	17	48.6	13	37.1	5	14.3	10	50.0	9	45.0	1	5.0
Ability to learn new tasks	19	54.3	14	40.0	2	5.7	10	50.0	10	50.0	0	0
Ability to accept and follow instructions	19	55.9	13	38.2	2	5.9	10	50.0	9	45.0	1	5.0
Dependability	21	60.0	13	37.1	1	2.9	13	61.9	7	33.3	1	4.8
Overall performance	18	51.4	16	47.7	1	2.9	9	42.9	11	52.4	1	4.8

Civil tech & related

	Supervisors (N=17)						Personnel Officers (N=6)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	2	11.8	12	70.6	3	17.6	1	16.7	5	83.3	0	0
Good relations with colleagues	2	11.8	14	82.4	1	5.9	2	33.3	4	66.7	0	0
Personel appearance and conduct	0	0	14	82.4	3	17.6	1	16.7	5	83.3	0	0
Readiness for additional responsibility	3	17.6	9	52.9	5	29.4	1	16.7	5	83.3	0	0
Ability to learn new tasks	3	17.6	13	76.5	1	5.9	2	33.3	4	66.7	0	0
Ability to accept and follow instructions	6	35.3	9	52.9	2	11.8	1	16.7	5	83.3	0	0
Dependability	5	29.4	11	64.7	1	5.9	0	0	6	100.0	0	0
Overall performance	0	0	16	94.1	1	5.9	1	16.7	5	83.3	0	0

Electronics tech & related

	Supervisors (N=15)						Personnel Officers (N=9)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	3	20.0	11	73.3	1	6.7	4	44.4	5	55.6	0	0
Good relations with colleagues	5	33.3	10	66.7	0	0	2	22.2	7	77.8	0	0
Personal appearance and conduct	4	26.7	11	73.3	0	0	2	22.2	7	77.8	0	0
Readiness for additional responsibility	8	53.3	5	33.3	2	13.3	2	22.2	6	66.7	1	11.1
Ability to learn new tasks	4	26.7	11	73.3	0	0	6	77.7	3	33.3	0	0
Ability to accept and follow instructions	3	20.0	12	80.0	0	0	3	33.3	6	66.7	0	0
Dependability	9	60.0	4	26.7	2	13.3	3	33.3	6	66.7	0	0
Overall performance	4	26.7	10	66.7	1	6.7	2	22.2	7	77.8	0	0

TABLE 34 (Continued)
EMPLOYER RATINGS OF GRADUATES AS SUPERIOR, GOOD, AND FAIR & POOR, BY JOB AREAS

Drafting

	Supervisors (N=13)						Personnel Officers (N=8)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	1	7.7	9	69.2	3	23.1	2	25.0	6	75.0	0	0
Good relations with colleagues	4	30.8	8	61.5	1	7.7	3	37.5	4	50.0	1	12.5
Personal appearance and conduct	1	7.7	11	84.6	1	7.7	4	50.0	4	50.0	0	0
Readiness for additional responsibility	4	30.8	6	46.2	3	23.1	2	25.0	3	37.5	3	37.5
Ability to learn new tasks	3	23.1	7	53.8	3	23.1	1	12.5	6	75.0	1	12.5
Ability to accept and follow instructions	3	23.1	8	61.5	2	15.4	3	37.5	5	62.5	0	0
Dependability	6	46.2	6	46.2	1	7.7	6	75.0	2	25.0	0	0
Overall performance	2	15.4	9	69.2	2	15.4	2	25.0	6	75.0	0	0

Police

	Supervisors (N=22)						Personnel Officers (N=11)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	9	42.9	8	38.1	4	19.0	2	22.2	6	66.7	1	11.1
Good relations with colleagues	10	45.5	10	45.5	2	9.1	7	70.0	3	30.0	0	0
Personal appearance and conduct	13	59.1	7	31.8	2	9.1	5	50.0	5	50.0	0	0
Readiness for additional responsibility	10	45.5	7	31.8	5	22.7	4	36.4	6	54.5	1	9.1
Ability to learn new tasks	12	54.5	6	27.3	4	18.2	4	40.0	6	60.0	0	0
Ability to accept and follow instructions	12	54.5	8	36.4	2	9.1	5	50.0	5	50.0	0	0
Dependability	12	54.5	8	36.4	2	9.1	8	80.0	2	20.0	0	0
Overall performance	10	45.5	8	36.4	4	18.2	3	30.0	7	70.0	0	0

Corrections, public services

	Supervisors (N=8)						Personnel Officers (N=5)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	0	0	6	75.0	2	25.0	0	0	4	80.0	1	20.0
Good relations with colleagues	4	50.0	4	50.0	0	0	3	60.0	2	40.0	0	0
Personal appearance and conduct	3	37.5	5	62.5	0	0	2	40.0	3	60.0	0	0
Readiness for additional responsibility	1	12.5	6	75.0	1	12.5	0	0	4	80.0	1	20.0
Ability to learn new tasks	2	25.0	5	62.5	1	12.5	1	20.0	3	60.0	1	20.0
Ability to accept and follow instructions	2	25.0	6	75.0	0	0	1	20.0	4	80.0	0	0
Dependability	3	37.5	4	50.0	1	12.5	1	20.0	3	60.0	1	20.0
Overall performance	1	12.5	6	75.0	1	12.5	1	20.0	3	60.0	1	20.0

Data processing

	Supervisors (N=11)						Personnel Officers (N=6)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	6	54.5	3	27.3	2	18.2	3	50.0	2	33.3	1	16.7
Good relations with colleagues	4	36.4	7	63.6	0	0	1	16.7	5	83.3	0	0
Personal appearance and conduct	3	27.3	6	54.5	2	18.2	3	50.0	2	33.3	1	16.7
Readiness for additional responsibility	8	72.7	2	18.2	1	9.1	1	16.7	4	66.7	1	16.7
Ability to learn new tasks	7	63.6	3	27.3	1	9.1	3	50.0	2	33.3	1	16.7
Ability to accept and follow instructions	8	72.7	3	27.3	0	0	1	16.7	5	83.3	0	0
Dependability	10	90.9	0	0	1	9.1	2	33.3	4	66.7	0	0
Overall performance	7	63.6	3	27.3	1	9.1	0	0	6	100.0	0	0

TABLE 34 (Continued)
EMPLOYER RATINGS OF GRADUATES AS SUPERIOR, GOOD, AND FAIR & POOR, BY JOB AREAS

Retailing

	Supervisors (N=8)						Personnel Officers (N=4)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	1	14.3	6	85.7	0	0	0	0	3	75.0	1	25.0
Good relations with colleagues	5	62.5	3	37.5	0	0	2	50.0	1	25.0	1	25.0
Personal appearance and conduct	5	62.5	3	37.5	0	0	4	100.0	0	0	0	0
Readiness for additional responsibility	6	75.0	1	12.5	1	12.5	2	50.0	2	50.0	0	0
Ability to learn new tasks	6	75.0	2	25.0	0	0	1	25.0	3	75.0	0	0
Ability to accept and follow instructions	3	37.5	5	62.5	0	0	2	50.0	1	25.0	1	25.0
Dependability	5	62.5	3	37.5	0	0	2	50.0	2	50.0	0	0
Overall performance	2	25.0	6	75.0	0	0	1	25.0	3	75.0	0	0

Others, unknown

	Supervisors (N=12)						Personnel Officers (N=3)					
	Superior		Good		Fair & Poor		Superior		Good		Fair & Poor	
	N	%	N	%	N	%	N	%	N	%	N	%
Mastery of technical skills	5	45.4	4	36.4	2	18.2	0	0	0	0	1	100.0
Good relations with colleagues	6	50.0	6	50.0	0	0	0	0	1	100.0	0	0
Personal appearance and conduct	4	33.3	7	58.3	1	8.3	0	0	1	100.0	0	0
Readiness for additional responsibility	4	33.3	5	41.7	3	25.0	0	0	1	100.0	0	0
Ability to learn new tasks	7	58.3	4	33.3	1	8.3	0	0	0	0	1	100.0
Ability to accept and follow instructions	6	50.0	4	33.3	2	16.7	0	0	1	100.0	0	0
Dependability	8	66.7	3	25.0	1	8.3	0	0	1	100.0	0	0
Overall performance	4	33.3	6	50.0	2	16.7	0	0	1	100.0	0	0

*Food services job area not included due to insufficient N.

TABLE 35
EMPLOYER RATINGS OF CONTINUED EDUCATION AND TRAINING
AS IMPORTANT, OF SOME IMPORTANCE, AND OF LITTLE IMPORTANCE, BY JOB AREAS*

Business

	Supervisors (N=28)						Personnel Officers (N=19)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	25	89.3	3	10.7	0	0	18	94.7	1	5.3	0	0
Additional specialty courses	11	42.3	11	42.3	4	15.4	7	43.8	5	31.3	4	25.0
Additional general education courses	2	7.7	14	53.8	10	38.5	0	0	9	56.3	7	43.8
Others	0	0	0	0	0	0	1	50.0	1	50.0	0	0

Secretarial

	Supervisors (N=34)						Personnel Officers (N=24)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	28	82.4	5	14.7	1	2.9	20	83.3	3	12.5	1	4.2
Additional specialty courses	5	16.1	18	58.1	8	25.8	3	13.6	12	54.5	7	31.8
Additional general education courses	3	9.7	18	58.1	10	32.3	1	4.5	10	45.5	11	50.0
Others	1	50.0	0	0	1	50.0	0	0	0	0	0	0

Civil tech & related

	Supervisors (N=17)						Personnel Officers (N=7)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	14	82.4	3	17.6	0	0	7	100.0	0	0	0	0
Additional specialty courses	8	47.1	8	47.1	1	5.9	3	42.9	4	57.1	0	0
Additional general education courses	0	0	14	82.4	3	17.6	0	0	4	66.7	2	33.3
Others	1	50.0	1	50.0	0	0	2	100.0	0	0	0	0

Electronics tech & related

	Supervisors (N=14)						Personnel Officers (N=12)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	9	64.3	5	35.7	0	0	12	100.0	0	0	0	0
Additional specialty courses	7	53.8	3	23.1	3	23.1	1	10.0	8	80.0	1	10.0
Additional general education courses	3	23.1	7	53.8	3	23.1	0	0	8	66.7	4	33.3
Others	2	100.0	0	0	0	0	0	0	2	100.0	0	0

Drafting

	Supervisors (N=13)						Personnel Officers (N=7)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	11	84.6	2	15.4	0	0	6	85.7	1	14.3	0	0
Additional specialty courses	6	46.2	7	53.8	0	0	3	42.9	4	57.1	0	0
Additional general education courses	1	7.7	7	53.8	5	38.5	0	0	0	0	5	100.0
Others	1	50.0	0	0	1	50.0	0	0	0	0	0	0

TABLE 35 (Continued)
EMPLOYER RATINGS OF CONTINUED EDUCATION AND TRAINING
AS IMPORTANT, OF SOME IMPORTANCE, AND OF LITTLE IMPORTANCE, BY JOB AREAS

Police

	Supervisors (N=21)						Personnel Officers (N=12)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	21	100.0	0	0	0	0	11	91.7	1	8.3	0	0
Additional specialty courses	12	57.1	7	33.3	2	9.5	8	66.7	4	33.3	0	0
Additional general education courses	2	9.5	16	76.2	3	14.3	5	41.7	5	41.7	2	16.7
Others	1	50.0	0	0	1	50.0	0	0	0	0	0	0

Corrections, public services

	Supervisors (N=8)						Personnel Officers (N=6)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	8	100.0	0	0	0	0	6	100.0	0	0	0	0
Additional specialty courses	5	62.5	2	25.0	1	12.5	4	66.7	1	16.7	1	16.7
Additional general education courses	1	12.5	7	87.5	0	0	2	33.3	3	50.0	1	16.7
Others	1	50.0	1	50.0	0	0	1	50.0	1	50.0	0	0

Data processing

	Supervisors (N=11)						Personnel Officers (N=6)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	8	72.7	1	9.1	2	18.2	5	83.3	1	16.7	0	0
Additional specialty courses	5	54.5	5	45.5	0	0	3	50.0	3	50.0	0	0
Additional general education courses	2	18.2	5	45.5	4	36.4	1	20.0	1	20.0	3	60.0
Others	0	0	0	0	0	0	0	0	0	0	0	0

Retailing

	Supervisors (N=7)						Personnel Officers (N=3)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	7	100.0	0	0	0	0	3	100.0	0	0	0	0
Additional specialty courses	0	0	5	71.4	2	28.6	1	33.3	1	33.3	1	33.3
Additional general education courses	0	0	5	71.4	2	28.6	0	0	2	66.7	1	33.3
Others	0	0	0	0	0	0	0	0	0	0	0	0

Others, unknown

	Supervisors (N=12)						Personnel Officers (N=3)					
	Important		Some Importance		Little Importance		Important		Some Importance		Little Importance	
	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job training	9	75.0	3	25.0	0	0	1	100.0	0	0	0	0
Additional specialty courses	6	50.0	5	41.7	1	8.3	0	0	1	100.0	0	0
Additional general education courses	2	16.7	6	50.0	4	33.3	0	0	0	0	1	100.0
Others	2	100.0	0	0	0	0	0	0	0	0	0	0

*Food services job area not included due to insufficient N.

TABLE 36
INCENTIVES OFFERED FOR CONTINUED EDUCATION, BY JOB AREAS
(PERSONNEL OFFICER)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
In-service training programs	12	13	4	8	1	7
Payment for continued education	13	12	5	8	7	11
Released time for continued education	4	9	3	3	2	9
Others	1	0	0	2	0	3
Total raters	24	25	7	12	9	13

	Correctns & pub.svc	Data processng	Retailing	Food services	Others & Unknown	Total N	Total %
In-service training programs	5	2	3	0	1	56	50.5
Payment for continued education	3	4	2	1	1	67	60.4
Released time for continued education	4	3	1	0	0	38	34.2
Others	1	2	0	0	0	9	8.1
Total raters	6	6	5	1	2	110	

TABLE 37
EXTENT OF SUPPORT OFFERED FOR EDUCATIONAL EXPENSES, BY JOB AREAS*
(PERSONNEL OFFICER)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting
Full payment, tuition & related expenses	6	4	5	5	4
Between half and full payment	5	6	0	1	2
Payment of one-half or less	2	0	0	0	1
Total	13	10	5	6	7

	Police	Correctns & pub.svc	Data processng	Retailing	Others & Unknown	Total N	Total %
Full payment, tuition & related expenses	6	5	4	0	0	39	62.9
Between half and full payment	2	0	1	0	1	18	29.0
Payment of one-half or less	1	0	0	1	0	5	8.1
Total	9	5	5	1	1	62	100.0

*No response by employer in Food Services area.

TABLE 38
RATING OF H.A.C.C.'S PLACEMENT SERVICE, BY CURRICULUM COMPLETED

	Police Adminis. (N=41)		Police & Related (N=33)		Civil Tech (N=34)		Electrncs Tech (N=30)		Draftng, Indstrl. (N=26)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Could still get help if needed	11	1	7	1	6	2	7	3	6	2.5
Considerable assistance from staff	8	2	5	2	2	7	5	4	6	2.5
Placement assistance was helpful	2	5.5	3	3	9	1	11	1	5	6
Good placement service overall	2	5.5	2	5.5	5	4	8	2	5	6
Little interest or assistance	4	3	2	5.5	5	4	2	7	5	6
Willing to help but lacking in knowledge	2	5.5	2	5.5	5	4	3	6	6	2.5
Inadequate placement service overall	2	5.5	2	5.5	4	6	4	5	6	2.5

TABLE 38 (CONTINUED)
RATING OF H.A.C.C.'S PLACEMENT SERVICE, BY CURRICULUM COMPLETED

	Secretl, Off.Stud. (N=53)		Bus.Mgmt. & Acctg. (N=43)		Retailing (N=29)		Food Services (N=11)		Data Processng (N=18)		Total (N=318)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Could still get help if needed	24	3	11	2	9	1	6	1	7	3	94	1
Considerable assistance from staff	25	2	13	1	6	3.5	3	2	8	2	81	2
Placement assistance was helpful	26	1	6	4	6	3.5	1	6.5	10	1	79	3
Good placement service overall	20	4	10	3	7	2	2	4	6	4	67	4
Little interest or assistance	3	6.5	3	5	5	5	2	4	2	7	33	5
Willing to help but lacking in knowledge	4	5	1	6	0		2	4	3	5.5	28	6
Inadequate placement service overall	3	5.6	0		1	6	1	6.5	3	5.5	26	7

TABLE 39
RATING OF H.A.C.C.'S PLACEMENT SERVICE, BY YEAR OF GRADUATION

	1966 (N=20)		1967 (N=38)		1968 (N=58)		1969 (N=101)		1970 (N=101)		Total (N=318)	
	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
Could still get help if needed	7	1	9	4	13	2	36	1	29	1	94	1
Considerable assistance from staff	5	3.5	14	1	13	2	24	2.5	25	2.5	81	2
Placement assistance was helpful	6	2	13	2	13	2	22	4	25	2.5	79	3
Good placement service overall	5	3.5	11	3	12	4	24	2.5	15	4	67	4
Little interest or assistance	2	5.5	2	6.5	11	5	8	7	10	6.5	33	5
Willing to help, but lacking in knowledge	2	5.5	2	6.5	4	6	9	6	11	5	28	6
Inadequate placement service overall	1	7	1	5	3	7	10	5	10	6.5	25	7

TABLE 40
RATING OF COOPERATIVE WORK EXPERIENCE, BY CURRICULUM COMPLETED

	Excellent		Good		Some value		Little or no value		Total
	N	%	N	%	N	%	N	%	N
Police Administration	1	100.0	0	0	0	0	0	0	1
Police & Related Career	5	62.5	1	12.5	2	25.0	0	0	8
Civil Technology	0	0	1	50.0	1	50.0	0	0	2
Electronics Technology	0	0	1	50.0	1	50.0	0	0	2
Drafting & Industrial	3	42.9	2	28.6	1	14.3	1	14.3	7
Secretarial & Office Studies	28	58.3	14	29.2	5	10.4	1	2.1	48
Business Management & Accounting	0	0	0	0	1	100.0	0	0	1
Retailing	6	28.6	11	52.4	3	14.3	1	4.8	21
Food Services	6	100.0	0	0	0	0	0	0	6
Data Processing	4	23.5	8	47.1	5	29.4	0	0	17
Total	53	47.3	37	33.0	19	17.0	3	2.7	112

TABLE 41
RECOMMENDATIONS FOR PROPORTION OF GENERAL AND TECHNICAL COURSES, BY CURRICULUM COMPLETED

	Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
O.K. as is	21	84.0	17	73.9	11	64.7	14	70.0	8	40.0
More technical and skills courses	3	12.0	5	21.7	6	35.3	5	25.0	11	55.0
More general education courses	1	4.0	1	4.3	0	0	1	5.0	1	5.0
Total	25	100.0	23	100.0	17	100.0	20	100.0	20	100.0

	Secretl, Off.Stud.		Bus.Mgmt. & Acctg.		Retailing		Food Services		Data Processng		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
O.K. as is	39	79.6	27	87.1	14	70.0	6	75.0	9	52.9	166	72.2
More technical and skills courses	7	14.3	2	6.5	3	15.0	1	12.5	7	41.2	50	21.7
More general education courses	3	6.1	2	6.5	3	15.0	1	12.5	1	5.9	14	6.1
Total	49	100.0	31	100.0	20	100.0	8	100.0	17	100.0	230	100.0

TABLE 42
RECOMMENDATIONS FOR PROPORTION OF GENERAL AND TECHNICAL COURSES, BY JOB AREAS

	Business		Secretl.		Civil tech & related		Elec.tech & related		Drafting		Police	
	N	%	N	%	N	%	N	%	N	%	N	%
O.K. as is	32	84.2	39	79.6	10	58.8	11	61.1	6	42.9	23	82.1
More technical and skills courses	4	10.5	7	14.3	7	41.2	6	33.3	7	50.0	4	14.3
More general education courses	2	5.3	3	6.1	0	0	1	5.6	1	7.1	1	3.6
Total	38	100.0	49	100.0	17	100.0	18	100.0	14	100.0	28	100.0

	Correctns		Public services		Food services		Data processng		Retailing		Others & Unknown		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
O.K. as is	3	75.0	4	80.0	4	100.0	8	50.0	8	66.7	10	66.7	158	74.5
More technical and skills courses	1	25.0	0	0	0	0	7	43.8	2	16.7	5	33.3	42	19.8
More general education courses	0	0	1	20.0	0	0	1	6.3	2	16.7	0	0	12	5.7
Total	4	100.0	5	100.0	4	100.0	16	100.0	12	100.0	15	100.0	212	100.0

TABLE 43
REPORTED ADVANTAGE OF ASSOCIATE DEGREE FOR EMPLOYMENT, BY JOB AREAS

	Business		Secretl.		Civl tech & related		Elec.tech & related		Drafting		Police	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes, associate degree graduates have better chance	32	72.7	33	64.7	16	88.9	15	78.9	14	87.5	21	63.6
No, they do not	12	27.3	18	35.3	2	11.1	4	21.1	2	12.5	12	36.4
Total	44	100.0	51	100.0	18	100.0	19	100.0	16	100.0	33	100.0

	Correctns		Public services		Food services		Data processng		Retailing		Others & Unknown		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes, associate degree graduates have better chance	4	80.0	4	80.0	4	80.0	13	81.3	9	75.0	7	43.8	172	71.7
No, they do not	1	20.0	1	20.0	1	20.0	3	18.8	3	25.0	9	56.3	68	28.3
Total	5	100.0	5	100.0	5	100.0	16	100.0	12	100.0	16	100.0	240	100.0

TABLE 44

FREQUENCY OF RATING H.A.C.C. EDUCATION AS SUPERIOR OR GOOD, BY CURRICULUM COMPLETED

	Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
Technical knowledge	23	88.5	17	85.0	16	84.2	18	78.3	17	77.3
Job or learning skills	21	80.8	15	75.0	11	57.9	19	82.6	14	63.6
Interpersonal relations	22	84.6	15	75.0	11	57.9	12	52.2	12	54.5
Self-understanding	19	73.1	14	70.0	12	63.2	16	69.6	11	50.0
Knowledge of job and career opportunities	21	80.8	17	85.0	5	26.3	9	39.1	8	36.4
Overall	22	84.6	17	85.0	14	73.7	14	60.9	15	68.2
Total raters	26		20		19		23		22	

	Secretl, Off.Stud.		Bus.Mgmt. & Acctg.		Retailing		Food Services		Data Processng		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Technical knowledge	43	91.5	25	73.5	14	70.0	5	71.4	14	82.4	192	81.7
Job or learning skills	44	93.6	22	64.7	14	70.0	4	57.1	14	82.4	178	75.7
Interpersonal relations	34	72.3	25	73.5	16	80.0	6	85.7	7	41.2	160	68.1
Self-understanding	31	66.0	26	76.5	17	85.0	7	100.0	8	47.1	161	68.5
Knowledge of job and career opportunities	33	70.2	21	61.8	14	70.0	7	100.0	6	35.3	141	60.0
Overall	42	89.4	28	82.4	16	80.0	7	100.0	13	76.5	188	80.0
Total raters	47		34		20		7		17		235	

TABLE 45
FREQUENCY OF RATING H.A.C.C. EDUCATION AS SUPERIOR OR GOOD, BY YEAR OF GRADUATION

	1966		1967		1968		1969		1970		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Technical knowledge	11	78.6	25	73.5	37	84.1	57	82.6	62	83.4	192	81.7
Job or learning skills	10	71.4	26	76.5	33	75.0	50	72.5	59	79.7	178	75.7
Interpersonal relations	10	71.4	26	76.5	32	72.7	45	65.2	47	63.5	160	68.1
Self-understanding	13	92.9	19	55.9	37	84.1	48	69.6	44	59.5	161	68.5
Knowledge of job and career opportunities	7	50.0	22	64.7	25	56.8	45	65.2	42	56.8	141	60.0
Overall	11	78.6	26	76.5	37	84.1	54	78.3	60	81.1	188	80.0
Total raters	14		34		44		69		74		235	

TABLE 46
RECOMMENDATION OF H.A.C.C.

	Summary		Sex: Males		Sex: Females	
	N	%	N	%	N	%
Yes	283	90.7	207	91.2	76	89.4
No	29	9.3	20	8.8	9	10.6
Total	312	100.0	227	100.0	85	100.0

	Year of Graduation: 1966		1967		1968		1969		1970	
	N	%	N	%	N	%	N	%	N	%
Yes	18	90.0	35	94.6	50	92.6	92	91.1	88	88.0
No	2	10.0	2	5.4	4	7.4	9	8.9	12	12.0
Total	20	100.0	37	100.0	54	100.0	101	100.0	100	100.0

	Curriculum Completed: Police Adminis.		Police & Related		Civil Tech		Electrncs Tech		Draftng, Indstrl.	
	N	%	N	%	N	%	N	%	N	%
Yes	41	100.0	32	97.0	33	100.0	25	83.3	22	84.6
No	0	0	1	3.0	0	0	5	16.7	4	15.4
Total	41	100.0	33	100.0	33	100.0	30	100.0	26	100.0

	Secreti, Off. Stud.		Bus. Mgmt. & Acctg.		Retailing		Food Services		Data Processng	
	N	%	N	%	N	%	N	%	N	%
Yes	45	86.5	38	90.5	24	88.9	8	80.0	15	83.3
No	7	13.5	4	9.5	3	11.1	2	20.0	3	16.7
Total	52	100.0	42	100.0	27	100.0	10	100.0	18	100.0

TABLE 47
AVAILABILITY OF PLACEMENT INFORMATION, BY JOB AREAS
(PERSONNEL OFFICERS)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
Information was available	17	21	5	11	8	10
Information sometimes available	0	0	1	0	0	0
Total	17	21	6	11	8	10

	Correctns & pub.svc	Data Processng	Retailing	Food services	Others & Unknown	Total N	Total %
Information was available	3	4	2	1	1	83	96.5
Information sometimes available	0	1	1	0	0	3	3.5
Total	3	5	3	1	1	86	100.0

TABLE 48
ADVANTAGES OF EMPLOYING H.A.C.C. GRADUATES, BY JOB AREAS
(PERSONNEL OFFICERS)

	Business	Secretl.	Civl tech & related	Elec.tech & related	Drafting	Police
Graduates more productive and more trainable	10	17	5	7	7	7
Graduates expected to progress more rapidly in job responsibility and salary	10	19	5	7	7	7
Having earned associate degree makes little difference	5	2	1	3	0	1
Total raters	24	25	7	12	9	13

	Correctns & pub.svc	Data processng	Retailing	Food services	Others & Unknown	Total N	Total %
Graduates more productive and more trainable	3	5	0	0	1	62	55.9
Graduates expected to progress more rapidly in job responsibility and salary	1	4	1	0	1	62	55.9
Having earned associate degree makes little difference	3	1	2	1	1	20	18.0
Total raters	6	6	5	1	3	111	

LIST OF EMPLOYERS BY H.A.C.C. CURRICULUM*

Data Processing

Burrell Pontiac-Buick
Halifax, Pa.
Colonial Chev., Inc.
Norfolk, Va.
H.A.C.C.
Harrisburg, Pa.
M.S. Hershey Medical Center
Hershey, Pa.
IBM
Mechanicsburg, Pa. (2)
Pa. Civil Service Commission
Harrisburg, Pa. (3)
Pa. Department of Education
Penbrook, Pa.
Pa. Office of Administration
Harrisburg, Pa. (4)
Penn Mutual Life Insurance Co.
Harrisburg, Pa.
United Associated Grocers
Robesonia, Pa.
USF&G
Harrisburg, Pa.

Food Services

Embers Restaurant
Carlisle, Pa.
Foam Products, Inc.
York Haven, Pa.
G.C. Murphy Company
Oxon Hill, Md.
Pa. Podiatry Association
Harrisburg, Pa.
Pruss's, Inc.
Harrisburg, Pa.

Retailing

Bowman's Dept. Store
Harrisburg, Pa. (2)
Dentsply International
York, Pa.
C.M. Detweiler, Inc.
Camp Hill, Pa.
IBM
Mechanicsburg, Pa.
Middle Dept. Assoc. of
Fire Underwriters
Harrisburg, Pa.
Montgomery Ward & Co.
Carlisle, Pa.
Ormond Shop, Inc.
Lemoyne, Pa.
Pa. Dept. of Labor & Industry
Harrisburg, Pa.
Pomeroy's Dept. Store
Harrisburg, Pa.
Prudential Insurance Co. of Am.
Harrisburg, Pa. (2)
Sears, Roebuck, & Co.
Chambersburg, Pa. (1)
Harrisburg, Pa. (1)
State Capital Savings & Loan
Assoc.
Harrisburg, Pa.
United Telephone Co. of Pa.
Carlisle, Pa.
John Wanamaker's
Harrisburg, Pa.
Weis Market, Inc.
York, Pa.

Secretarial & Office Studies

American Telephone & Telegraph Co.
Harrisburg, Pa.
AMP, Inc.
Harrisburg, Pa. (6)
Comm. Gen. Osteopathic Hospital
Harrisburg, Pa. (2)
Dauphin County Vo-Tech School
Harrisburg, Pa.
Durand Area High School
Durand, Mich.
H.A.C.C.
Harrisburg, Pa. (4)
Harrisburg Hospital
Harrisburg, Pa.
Harrisburg Surgical Co.
Harrisburg, Pa.
C. Scott Harrison, M.D.
Mechanicsburg, Pa.
Hershey Foods Corp.
Hershey, Pa.
M.S. Hershey Medical Center
Hershey, Pa.
Allan W. Holman, Jr., Esq.
New Bloomfield, Pa.
Holy Spirit Hospital
Camp Hill, Pa. (2)
Kinney Shoe Corp.
Camp Hill, Pa.
Lehigh Co. Community College
Schnecksville, Pa.
McNees, Wallace, & Nurick
Harrisburg, Pa.
Nease Chemical Co., Inc.
State College, Pa.
Richard J. Patterson, M.D.
Harrisburg, Pa.
Penna. Blue Shield
Camp Hill, Pa.
Pa. Council of Civil Defense
Harrisburg, Pa.
Pa. Department of Health
Harrisburg, Pa.
Pa. Dept. of Labor & Industry
Harrisburg, Pa.
Pa. Dept. of Transportation
Harrisburg, Pa.
Pa. Insurance Department
Harrisburg, Pa.
Pa. Osteopathic Assoc.
Harrisburg, Pa.
Pa. Probation & Parole Board
Harrisburg, Pa.
Pa. State Council of Carpenters
Harrisburg, Pa.
Pa. State Education Assoc.
Harrisburg, Pa.
Pitman-Moore, Inc.
Fort Washington, Pa.
RCA
Lancaster, Pa. (1)
Marlboro, Mass. (1)
Renault Southeast, Inc.
Ft. Lauderdale, Fla.
Sears, Roebuck, & Co.
Harrisburg, Pa.
L.B. Smith White Truck Corp.
Camp Hill, Pa.
South Brunswick High School
Monmouth Junctions, N.J.
U.S. Bureau of Narcotics and
Dangerous Drugs
Washington, D.C.

Business Management & Acctg.

American Can Company
Jersey City, N.J.
AMP, Inc.
Harrisburg, Pa. (2)
Bowman Products Division
Cleveland, Ohio
H.F. Campbell & Son, Inc.
Millerstown, Pa.
Capitol Products Corp.
Mechanicsburg, Pa.
Caterpillar Tractor Co.
York, Pa.
Central Hudson Gas & Electric
Poughkeepsie, N.Y.
Daily Express, Inc.
Carlisle, Pa.
General Waterworks
Harrisburg, Pa.
Giant Food Stores, Inc.
Carlisle, Pa. (1)
Harrisburg, Pa. (1)
H.A.C.C.
Harrisburg, Pa.
Harrisburg Grocery Co.
Harrisburg, Pa.
Harrisburg Hospital
Harrisburg, Pa.
Kinney Shoe Corp.
Camp Hill, Pa. (3)
Carlisle, Pa. (1)
Kraft Foods
Harrisburg, Pa.
Jim Martin Tire Co., Inc.
Jacksonville, Fla.
Harry Myhre, Inc.
Harrisburg, Pa.
National Cash Register
Harrisburg, Pa.
Penbrook Hauling Co., Inc.
Harrisburg, Pa.
Pomeroy's Inc.
Harrisburg, Pa.
Pyrofax Gas Corp.
New Cumberland, Pa.
Schick Electric, Inc.
Lancaster, Pa.
Schultz, Sorin & Co.
Harrisburg, Pa.
Susquenita High School
Duncannon, Pa.
TRW, Inc.
Harrisburg, Pa.
UGITE
Harrisburg, Pa.
William Penn High School
Harrisburg, Pa.

LIST OF EMPLOYERS BY H.A.C.C. CURRICULUM (Continued)

Civil Technology

Brookhart & Tyo Consulting Engineers
Harrisburg, Pa.
Calgon Corp.
Pittsburgh, Pa.
Capitol Engineering Corp.
Dillsburg, Pa. (2)
Consolidated Engineering Co.
Baltimore, Md. (2)
Gannett, Fleming, Corddry, & Carpenter
Camp Hill, Pa.
Jones & Henry Engrs. Ltd.
Toledo, Ohio
Lycoming Construction Co.
Williamsport, Pa.
Pa. Dept. of Transportation
Harrisburg, Pa. (6)
Rummel, Klepper & Kahl, Consulting Engrs.
Baltimore, Md.
Yule Jordan & Assoc.
Camp Hill, Pa.

Electronics Technology

Armstrong Cork Co.
Lancaster, Pa.
Bell Telephone Co.
Allentown, Pa. (1)
Fort Washington, Pa. (1)
Philadelphia, Pa. (1)
Milton Eshelman Co.
Harrisburg, Pa.
H.S. Foreman
Elizabethtown, Pa.
General Science
Bridgeport, Conn.
H.A.C.C.
Harrisburg, Pa.
Harrisburg Seaplane Base
Wormleysburg, Pa.
Montgomery Ward & Co.
Carlisle, Pa.
Pa. Air National Guard
Middletown, Pa.
Pa. Dept. of Transportation
Harrisburg, Pa.
P.P.& L.
Harrisburg, Pa.
Pomeroy's Dept. Store
Harrisburg, Pa.
United Air Lines, Inc.
Chicago, Illinois
United Telephone Co. of Pa.
Carlisle, Pa.
UNIVAC
Lemoyne, Pa.
Western Electric Co.
Allentown, Pa. (2)
WTPA-TV
Harrisburg, Pa.
Xerox Corp.
Webster, N.Y.

Drafting & Industrial

AMP, Inc.
Harrisburg, Pa.
Berger Associates, Inc.
Camp Hill, Pa.
Carlisle Tire & Rubber
Carlisle, Pa.
D & H Distributing Co.
Harrisburg, Pa.
Gannett, Fleming, Corddry & Carpenter
Camp Hill, Pa. (3)
J.E. Greiner, Co., Inc.
Harrisburg, Pa.
Hain Wolf Assoc.
Harrisburg, Pa.
Harrisburg Steel Co.
Harrisburg, Pa.
Knouse Foods Inc., Corp.
Peach Glen, Pa.
Lawrie & Green
Harrisburg, Pa.
Lebanon Homes, Inc.
Myerstown, Pa.
Metal Industries of Calif.
Elizabethville, Pa.
Orr & Sembower, Inc.
Middletown, Pa.
Pa. Dept. of Transportation
Harrisburg, Pa. (3)
Pa. Office of Administration
Harrisburg, Pa.
Syntonic Technology, Inc.
Harrisburg, Pa.
Western Electric
Clayton, Missouri
Yule Jordan & Assoc.
Camp Hill, Pa.

Police Administration

Arlington Co. Police Dept.
Arlington, Va.
Board of Probation & Parole
Wilkes-Barre, Pa.
Wm. J. Burns Int'l Detective Agency
Richmond, Va.
Employer's Commercial Union Insurance Co.
Camp Hill, Pa.
Ephrata Police Dept.
Ephrata, Pa.
Formart Container Co.
Shamokin, Pa.
Harrisburg City Police
Harrisburg, Pa. (3)
Lancaster Bureau of Police
Lancaster, Pa. (6)
Pa. Liquor Control Board
Harrisburg, Pa.
Pa. State Police
Harrisburg, Pa. (10)
Ramada Inn
Mechanicsburg, Pa.
Ski Roundtop
Lewisberry, Pa.
White Hill Correctional Inst.
Camp Hill, Pa.

Police & Related Career

Boy Scouts of America
Harrisburg, Pa.
Hershey Estates Dairy
Hershey, Pa.
Lancaster Bureau of Police
Lancaster, Pa. (2)
Lewisburg Borough Police
Lewisburg, Pa.
Lower Swatara Police Dept.
Middletown, Pa.
Maryland Casualty Co.
Harrisburg, Pa.
Nationwide Insurance
Harrisburg, Pa.
Pa. Criminal Justice Planning Board
Harrisburg, Pa.
Pa. Medical Society
Lemoyne, Pa.
Pa. State Police
Harrisburg, Pa. (3)
Quality Motel
Carlisle, Pa.
H.B. Reese Candy Co.
Hershey, Pa.
Retail Credit Co.
Harrisburg, Pa.
Sheltered Workshop of York Co.
York, Pa.
Susquehanna Twp. Police Dept.
Harrisburg, Pa.
York Twp. Police Dept.
York, Pa.
White Hill Correctional Inst.
Camp Hill, Pa.

* If a company employed more than one graduate, the number is shown in parentheses.

EMPLOYED CAREER GRADUATES STUDY
Questionnaire to Graduates

Dear Alumnus:

We are conducting a study of our employed graduates from career programs at Harrisburg Area Community College. We will use information collected from an earlier 1969 survey of former students, but we need additional and updated information about your employment.

Can we count on you to provide the information we need? The questionnaire is designed to allow you to respond quickly. Please complete the questionnaire and return it as soon as possible--hopefully, within three days. A self-addressed and stamped return envelope is enclosed for your convenience.

Thanks so much for your help. Let us hear from you!

Very truly yours,

Fred A. Snyder
Director, Research
and Community Resources

(Please correct name and address, if necessary.)

2. Social Security Number ___-___-____

19___ 3. Year of birth

___ 4. Sex

1 Male
2 Female

Instructions. Write the appropriate number in the blank space on the left for each of the questions which follow.

___ 5. Marital status

1 Single
2 Married
3 Other

___ 6. From the list below, write the one number that best represents your present employment status.

1 Employed full time
2 Employed part time
3 In military services
4 Housewife
5 Student full time
6 Other (describe here) _____

7. To what extent have you continued your education since graduation from H.A.C.C. Check each that applies.

___a. Took courses at four-year college or university
___b. Earned a bachelor's degree or higher
___c. Completed one or more employer-training programs
___d. Other (please list) _____
___e. None

8. If you checked (a) or (b) in question #7, please write the name of the college and the curricular area below.

Name of college _____ Curricular area _____

___9. Counting your present job, how many different full-time jobs have you held since graduation from H.A.C.C.? If you were never employed full-time, show a "0" and state the reasons below.

_____

If you have never been employed full-time after graduation from H.A.C.C., skip directly to question #22.

Questions #10 through #21 can be answered only if you are or had been employed full-time after graduating from H.A.C.C. If you are not currently employed, provide information based upon your most recent full-time job.

10. Write the name and address of your current (or most recent) employer. Please show the subdivision of the organization in which you work(ed). If you work(ed) for a government organization or agency, show the full organizational designation, such as department, bureau, division, section, and the like.

Employer organization _____ Street _____

Subdivision of organization _____ City, State, Zip Code _____

11. Write the name and job title of your immediate supervisor.

Supervisor's name _____ Supervisor's job title _____

12. Write your job title, and describe the activities of your job in 10 words or less.

Your job title _____ Your job description _____

___13. Write the appropriate number to indicate your present annual salary, only if you are currently employed full-time.

1	Up to $3,999	6	$6,000-6,499	11	$8,500-8,999
2	$4,000-4,499	7	$6,500-6,999	12	$9,000-9,999
3	$4,500-4,999	8	$7,000-7,499	13	$10,000-10,999
4	$5,000-5,499	9	$7,500-7,999	14	$11,000-11,999
5	$5,500-5,999	10	$8,000-8,499	15	$12,000 & over

___14. In your opinion, do associate degree graduates have a better chance of being employed in your field than persons who haven't earned an associate degree?

1 Yes
2 No

15. We'd like to have your impressions of the assistance you received from the staff at H.A.C.C. in getting your initial job upon graduation. Please check (X) each of the following statements with which you agree:

___a. The placement assistance at H.A.C.C. was helpful in locating possible jobs in my field
___b. I got considerable assistance from faculty members, counselors, or the chairman of my academic division
___c. There was little interest in, or assistance given to, helping me and others in my curriculum to find suitable employment
___d. Faculty members were willing to help, but didn't seem to know what opportunities were available
___e. I believe that I could still get help in finding a new job from the professors in my division at H.A.C.C.
___f. All in all, the job placement services at H.A.C.C. were pretty good
___g. The job placement services at H.A.C.C. were simply inadequate

16. Briefly, do you have any suggestions how the job placement services at H.A.C.C. might be improved?

_____

_____

___17. If you participated in a cooperative work period as part of your curriculum at H.A.C.C., how would you rate its value for improving knowledge of occupations and employment in your field?

1 Excellent
2 Good
3 Some value
4 Little or no value

___18. In every career curriculum, there is a "mix" of courses in (a) applied technical and skills preparation, and (b) general education. Please rate the proportional "mix" of such courses in your curriculum at H.A.C.C.

1 O.K. as is. I would not change it.
2 More courses are needed in applied technical and skills areas (explain) ___

_____

3 More courses are needed in general education (please explain) _____

_____

19. Please rate your education at H.A.C.C. in terms of how well it prepared you for your present job or present educational efforts as (1) superior, (2) good, (3) fair, (4) poor.

___a. Technical knowledge and understanding
___b. Job or learning skills
___c. Interpersonal relations
___d. Self-understanding
___e. Knowledge about job activities and career opportunities in your field
___f. Overall

20. If you have continued your education since graduation from H.A.C.C., please check (X) each reason for such further education or training which applies to you.

___a. To prepare for further job opportunities in my present occupation
___b. To improve my skills and abilities in my present job
___c. For my own general education and personal satisfaction
___d. To change occupations
___e. It is expected of me by my employer
___f. Other (please list) _____

21. Please rate your satisfaction with your present job in terms of each of those aspects shown below, as (1) superior, (2) good, (3) fair, (4) poor.

___a. Challenging work
___b. Interesting work
___c. Good relations with colleagues
___d. Salary
___e. Opportunity for advancement
___f. Overall

___22. Would you recommend H.A.C.C. to a person seeking to complete the same program you studied?

1 Yes
2 No

23. Do you wish to add any comments about the strengths and weaknesses of your educational preparation at H.A.C.C.

Major strength _____

_____

Major weakness _____

_____

___24. Thank you for completing this questionnaire. Would you like to receive a summary of this study?

1 Yes
2 No

EMPLOYED CAREER GRADUATES STUDY
Personnel Officer Form

Dear Sir:

The Harrisburg Area Community College is conducting a survey of the employment of graduates from its career programs.

Your company has been identified as employing one or more associate degree graduates from H.A.C.C. We are collecting information from two sources within each company: (1) the personnel officer most responsible for employing associate degree graduates, and (2) the immediate supervisor of an associate degree graduate. A separate questionnaire has been sent to supervisors who have been identified by our graduates. It is essential that this questionnaire be completed independently from the supervisor's form.

As a part of this study, we would like you to answer the items listed in this questionnaire. Please return the questionnaire as soon as possible--hopefully within three days. A pre-addressed and stamped return envelope is enclosed for your convenience.

Thank you for your assistance. A copy of the results of the study will be sent to you, if you desire.

Very truly yours,

Fred A. Snyder
Director, Research
and Community Resources

1. The names of graduates from H.A.C.C. who are reported to be (or who have been) employed full time by your company are listed below. Please add any names of persons you know to be graduates from a career program at H.A.C.C.

   a. _____

   b. _____

   c. _____

2. Write your name and job title below.

   _____ _____
   Name Job title

   Instructions. Write the appropriate number in the blank space on the left for each of the questions which follow. Also, please feel free to add other comments in your own words.

3. What are the key types of information you want about a prospective employee who is an associate degree graduate? _____

_____

___4. When you have hired graduates from H.A.C.C., were you able to get the necessary information from the College about them (academic background, references from faculty, etc.)?

1 Yes
2 Sometimes
3 Usually not

___5. Based on your experience in hiring H.A.C.C. graduates, do you offer any suggestions for improving our job placement services?

1 No suggestions
2 Yes (please list here) _____

_____

_____

___6. What type of educational preparation should the associate degree graduates whom you might employ have completed at H.A.C.C.?

1 A specialized program, rather than one in general education
2 A general program, rather than one in a specialized area
3 Either, or both

7. Several statements below refer to possible advantages of employing two-year graduates from H.A.C.C. Check (X) each one with which you agree.

___a. Associate degree graduates become more productive more quickly and are more trainable than non-graduates
___b. Associate degree graduates are expected to progress more rapidly in job responsibility and salary than are non-graduates
___c. The associate degree makes little difference in productivity or progress on the job

8. Please rate generally those associate degree graduates listed on page 1 of this questionnaire, based on each of the considerations shown, as (1) Superior, (2) Good, (3) Fair, (4) Poor.

___a. Mastery of technical skills
___b. Good relations with colleagues and others
___c. Personal appearance and conduct
___d. Readiness for additional responsibility
___e. Ability to learn new tasks
___f. Ability to accept and follow instructions
___g. Dependability
___h. Overall performance

9. Several types of continued education and training for employees who are two-year graduates are shown below. Please rate the importance of each as (1) Important, (2) Of some importance, (3) Of little or no importance.

___a. On-the-job training, planned by employer
___b. Additional specialty courses at area colleges
___c. Additional general education courses at area colleges
___d. Others (please list) _____

10. Please check (X) each of the following incentives which your company has available to employees who are two-year graduates in order to promote their continued education.

___a. Well-organized in-service training programs for specific areas of employee development
___b. Payment of some tuition and other educational expenses at area colleges
___c. Released time, under certain conditions, to allow employees to take courses at area colleges
___d. Others (please list) _____

___11. If you grant payment of tuition and other educational expenses to your employees, note the extent and conditions of your financial support.

1 Full payment of tuition and related educational expenses
2 Between one-half and full payment of tuition and related educational expenses
3 Payment of one-half or less of tuition and related educational expenses

12. Referring to associate degree graduates you are most interested in hiring over the next several years, briefly state your ideas for their education and training.

_____

_____

_____

___13. Thank you for completing this questionnaire. Would you like to receive a summary of the study?

1 Yes
2 No

14. Please write below and on the reverse side of this sheet any other comments you wish to add.

EMPLOYED CAREER GRADUATES STUDY
Supervisor's Form

Dear Sir:

The Harrisburg Area Community College is conducting a survey of the employment of graduates from its career programs.

You have been identified as a supervisor of one or more associate degree graduates from H.A.C.C. As part of this study, we would like you to answer the items listed in this questionnaire. Please complete the questionnaire and return it as soon as possible--hopefully within three days. A pre-addressed and stamped return envelope is enclosed for your convenience.

Thank you for your assistance. A copy of the results will be sent to you, if you desire.

Very truly yours,

Fred A. Snyder
Director, Research
and Community Resources

1. The names of graduates who reported you as their current (or former) immediate supervisor are listed below. Please add the names of additional H.A.C.C. graduates from career programs who are employed full time and whom you supervise.

   a. _____

   b. _____

   c. _____

2. Please correct your job title in the above label if it is incorrect. Write below in 12 words or less a brief description of your job.

   _____

Instructions. Write the appropriate number in the blank space on the left for each of the questions which follow. Also, please feel free to add other comments in your own words.

3. Please rate generally those associate degree graduates listed on page 1 of this questionnaire, based on each of the considerations shown, as (1) Superior, (2) Good, (3) Fair, (4) Poor.

___a. Mastery of technical skills
___b. Good relations with colleagues and others
___c. Personal appearance and conduct
___d. Readiness for additional responsibility
___e. Ability to learn new tasks
___f. Ability to accept and follow instructions
___g. Dependability
___h. Overall performance

4. Several types of continued education and training for employees who are two-year graduates are shown below. Please rate the importance of each as (1) Important, (2) Of some importance, (3) Of little or no importance.

___a. On-the-job training, planned by employer
___b. Additional specialty courses at area colleges
___c. Additional general education courses at area colleges
___d. Others (please list) _____

___5. Thank you for completing this questionnaire. Would you like to receive a summary of this study?

1 Yes
2 No

6. Please write below any other comments you wish to add.